

CONVENTION ISSUE

INFORMATION LETTER

Not for
Publication

NATIONAL CANNERS ASSOCIATION

For Members
Only

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February 28, 1959

Proceedings of the 52d Annual Convention

NEWS SUMMARY

THIS CONVENTION ISSUE reports N.C.A.'s 52d Annual Convention, and reproduces texts of addresses and technical papers that were made available for publication:

ANNUAL MEETING, with election of Officers and Directors, Convention Resolutions, and addresses by L. R. Boulware and Sigurd Anderson pp. 43-56

MARKETING of canned foods was the subject of both morning and luncheon sessions:

Multiple packaging pp. 57-66
The market potential pp. 67-75
Marketing efficiency pp. 75-81
The government market pp. 82-88
Food editors conference pp. 88-92

THE FISHERY PRODUCTS CONFERENCE considered the "Law of the Sea" pp. 93-96

PRODUCTION PROBLEMS were discussed at several Raw Products and Laboratory sessions:

Raw product quality evaluation pp. 96-98
Containers and container problems pp. 99-113

THE BOARD OF DIRECTORS, at its closed session, acted on Association business p. 42
and, at its luncheon session, heard H. Thomas Austern's annual review of the Washington scene pp. 113-117

The 52d Annual Convention of the National Canners Association had capacity attendance at practically every session, whether of business or technical nature. The series of luncheons was completely sold out. In the matter of over-all attendance the combined Registration Desks of N.C.A. and the Canning Machinery and Supplies Association estimate that approximately 8,000 were in Chicago for the conclave, including several hundreds that live in the vicinity and therefore were not registered in the hotels.

A major action affecting N.C.A. administrative affairs was the decision by the Board of Directors to increase the rate of membership dues from $\frac{1}{10}$ ths of a cent to one-half of a cent per case on seasonal packs and from $\frac{1}{10}$ ths of a cent to a quarter of a cent per case on nonseasonal products. This increase does not apply to maximum dues payers, who have voluntarily increased their payments during the period since the last dues increase was voted in 1951. The additional revenue was needed to finance the recommended activities and programs of the various professional divi-



N.C.A. Officers
(left to right)

Norman Sorensen, 1959 President;
Edward E. Burns, 1958 President; and
Milan D. Smith, Vice President

sions of N.C.A. and the Consumer and Trade Relations Program.

The canners elected their 1958 Vice President, Norman Sorensen, chairman of the board of Country Gardens, Inc., Milwaukee, Wis., to be the 1959 President; Milan D. Smith, president of the Smith Canning and Freezing Company, Pendleton, Ore., as Vice President; Carlos Campbell to continue as Executive Secretary-Treasurer. The elections took place at the Opening General Session, Saturday, February 21, with President Edward E. Burns, president of the Alton Canning Co., Inc., Alton, N. Y., as presiding officer.

This session introduced to the Convention the new slogan devised for the canning industry by the Convention Program Committee, "Nature's Best is Better Canned!" set into special lyrics written by Jack Morton Productions, and sung by a trio. At each of the subsequent program sessions the slogan was incorporated into introductory musical numbers, presented in costumes appropriate to the character of the session—farmer garb for raw products, laboratory smocks for technological sessions, etc.

Before the official business of the annual meeting got under way, a delegation from Oregon, wearing beards and pioneer costumes symbolic of the centennial of the state, presented President Burns with a scroll signed by Governor Hatfield naming him as Oregon's ambassador at large. Vice President-elect Smith was in the group.

Mr. Burns' address opening the Convention called for the N.C.A. membership to take individual leadership and participation in the various programs of the Association. In taking office as President, Mr. Sorensen pledged himself to a betterment of membership relations and to activities that would tend to "make the title canner more highly respected and honored in the eyes of the world, and our products held in high regard."

The slate of new Officers and Directors was presented by William U. Hudson of Gerber Products Company, Oakland, Calif., Chairman of the Nominating Committee. At the same session the official Convention resolutions were presented by W. E. Beach of Burbank Canning Co., Burbank, Calif., Chairman of the Resolutions Committee.

A guest speaker at the Opening General Session was L. R. Boulware, vice president of General Electric Company, who urged canners, and all business citizens to take an active interest in and participation in government through political associations and activity. Mr. Boulware emphasized that "so long as politics is in business, we businessmen had better get ourselves more effective in politics directly—and more effective in help-

ing our customers, employees, owners and other affected fellow citizens think and act right in their own best interests."

Sigurd Anderson, Federal Trade Commissioner, whose speech title was "What Is the FTC Doing in the Food Industry?", described economic studies made by the agency, including the current investigation of economic concentration in food distribution.

At the conclusion of this session Past President George B. Morrill, Jr., of Burnham & Morrill Co., Portland, Me., came forward to present Mr. Burns with a thermograph (weather recording instrument) as a gift of ap-

preciation from the Association for his year of service as President.

Following the General Session there began an active schedule of technical and special luncheon meetings and program sessions. The first of these dealt with the market potential for canned foods, with Mr. Burns as chairman; another with "The Law of the Sea," for fish canners, with Donald P. Loker of the N.C.A. Fishery Products Committee, presiding; a third with new containers and container problems presided over by J. E. McConkie, a member of the N.C.A. Scientific Research Committee. There

(Please turn to page 117)

Board of Directors Acts on Association Business

The N.C.A. Board of Directors at its Convention meeting on February 20 voted a budget of \$1,458,095 for operating the Association in 1959 and raised dues to balance the budget.

The rate of dues for 1959 was set at one-half of a cent per case for seasonal products and one-fourth of a cent per case for nonseasonal products, with a minimum of \$75.

The increase in dues was the first since 1951. That increase had been accomplished in two steps beginning in 1949. The rate of dues established for 1959 is the same as that in effect during the early 1920's.

The Board meeting was opened with a discussion of Association finances during 1958, which was presented by A. Edward Brown, Chairman of the Finance Committee and the Administrative Council. He noted that N.C.A. expenditures in 1958 were \$1,363,000 and that this was about \$52,000 less than was authorized by the Board last year. In spite of that fact, however, expenditures exceeded 1958 income by about \$49,000. This deficit would have been considerably larger if it had not been for the fact that a number of the maximum dues payers voluntarily increased their dues to \$60,000 each.

Mr. Brown then presented the Administrative Council's recommended budget for 1959, which provided for a continuation of the 1958 rate of dues and budgeted expenses slightly in excess of estimated income for 1959. After considerable discussion the Board voted to add \$125,000 to the recommended budget so as to provide for continuing the Consumer and Trade Relations Program.

The Board approved the amended budget of \$1,458,095 and then voted to increase the rate of dues in order to balance the budget.

In other formal actions the Board (1) authorized trustees of two Association funds—Trust Indenture and Employee Retirement—to invest up to 25 percent of the income of each fund in securities other than U. S. securi-

ties, under specified conditions; and (2) authorized continuation of four special committees—Broker Relations Conference, Canner-Grower Coordinating, Convention Program, and Procurement.

The Board had discussion of legislative problems that may arise this year. The subject was introduced by John C. Hemingway, Chairman of the Legislative Committee, and was developed in discussion which was opened by P. K. Shoemaker, Chairman of the Canner-Grower Coordinating Committee.

President Burns reported to the Board on the results obtained by a special committee, of which he was chairman, with respect to FDA and USDA inspection programs. The report of this committee will be published in the INFORMATION LETTER at a later date.

A. L. Koch, Chairman of the Claims Committee, reported to the Board on the Committee's efforts to obtain detailed information from the membership regarding their methods of handling consumer complaints. The report will be published in the INFORMATION LETTER at a later date.

Secretary Carlos Campbell reported that the Executive Committee, acting for the Board, had approved the Officers' recommendation that the 1960 Convention be held in Miami Beach January 18-23, with headquarters in the Hotel Americana.

ED BROWN ELECTED CHAIRMAN OF ADMINISTRATIVE COUNCIL

President Burns announced to the Board that A. Edward Brown had been elected Chairman of the Administrative Council at its morning meeting. Mr. Brown, an attorney, has been associated with Michigan Fruit Canners, Inc., Benton Harbor, Mich., since 1938 and has carried responsibility for that firm's financial and general management. He has served the N.C.A. on a number of committees, was its President in 1957, and Chairman of the Finance Committee in 1958.

ANNUAL MEETING

PRESIDING: EDWARD E. BURNS, Alton Canning Company, Inc., Alton, N. Y., President

INVOCATION: KENNETH HILDEBRAND, D.D., Minister, Central Church of Chicago

GREETINGS: MR. BURNS, President

REPORT of the Nominating Committee: WILLIAM U. HUDSON, Gerber Products Company, Oakland, Calif., Chairman

ELECTION of Officers

REPORT of the Resolutions Committee: W. E. BEACH, Burbank Canning Company, Burbank, Calif., Chairman

ADDRESS: "How the Businessman Can Contribute to Better Government"—L. R. BOULWARE, Vice President, General Electric Company, New York City

ADDRESS: "What Is the Federal Trade Commission Doing in the Food Industry?"—SIGURD ANDERSON, Federal Trade Commission, Washington, D. C.

President's Greetings to Convention Delegates

By Edward E. Burns,

1958 President

National Canners Association

I welcome all members of the National Canners Association to this—our 52nd Annual Meeting.

We, likewise, welcome our honored guests and many visitors.

Thirteen months have passed since our last meeting, and it certainly has been an exceptionally interesting and somewhat surprising 13 months in our national economy, in scientific research development, in national and international politics, and most important to us, the change in the atmosphere of the canning industry.

We left Atlantic City a year ago physically and mentally depressed, knowing there were severe signs of a depression, heavy inventories and the business barometer falling.

But, shortly after the first quarter of 1958, general business surprised us with greater employment, gradual increased production of durable goods, and a booming stock market, all of which apparently developed confidence. Personal savings in 1958 exceeded all records, as did production of many agricultural products. New home construction was nearing the peak of 1950 and 1955; Europe's currency conversion was held as a world trade spur, and our population continued to increase with a forecast of 225 million by 1975. Our national election of 1958 indicated a little further swing in the balance of voting power between management and labor, which definitely forecast the possibility of even more liberal ideas and policies.

The economy of the future is somewhat clouded in the opinion of many because of a deficit budget, the threat of more inflation, the cold war, the

apparent over-expansion of certain basic industries and residential areas, and the still serious agricultural situation, which remains a drain on our treasury as well as providing an uneconomic theory unfair to many segments of a particular industry on which we are dependent and closely related.

Little might the Association do to provide its members with the economic sense to operate their businesses on a more sound and successful basis. However, there are many mediums through which your Association is an instrument for protecting and further developing our industry.

First, and most important, is the establishment of a constructive and definite program, whether it be in the field of legislation, research, public relations, information, claims, statistics or other project worthy of Association activity. Those programs must be instituted by a unity of spirit, a unity of purpose, and a unity of progression. We live in a country branded and well publicized as a country of "freedom." That privilege of "freedom"—freedom of expression—should be exercised by every member of our Association; if not direct, then through your representatives, better known as Directors or Committee members. We do not necessarily have to live on the laurels and the foresight of those who made this Association what it is today, but we should proceed by instituting new ideas, and develop more vision to meet the problems of today. It may be necessary to enlarge some divisions and reduce the activities of others that may not be as necessary as they were in the infancy of this Association.

To be more specific, and only as an example, legislative action might be either detrimental or beneficial to our

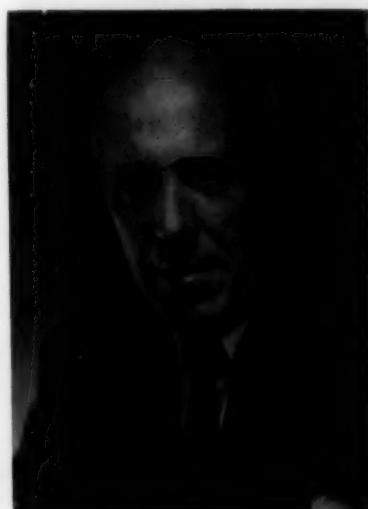
particular business society, and so it becomes most essential that our programs be definite, well formulated and developed by our unified body, so that our Association becomes a beneficial instrument of usefulness.

Similar definite decisions, and well organized planning are necessary in the public relations field. Today our industry, that of processing canned fruits, vegetables, meat and fish, is competing with other and various types of food. It is essential that we maintain and further exploit the convenience, the nutrition, and the economical characteristics of those products, and in addition, publicize the importance of our industry to the national economy.

With this foreseeable 20 percent increase in our national population in

EDWARD E. BURNS

1958 President



the next 10 years, we have an optimistic future which should be met by conservative but still progressive measures. We must meet the challenge of changing times and the changing needs of our industry.

From the past two years' experience, I am convinced that our staff members in all branches are doing an excellent job. They are enthusiastic and diligent in providing those services that are essential to the success of our industry and Association.

Naturally their directives must come from the membership, through the Board and Committees. Basically, therefore, it is your and my responsibility for initiating the necessary programs and the guidance to carry them to conclusion.

I am much indebted to Carlos, the staff, the state secretaries and to all members of N.C.A. for their fine cooperation and consideration during my term of office as your President—a real honor.

Norman Sorensen Elected 1959 President of N.C.A.; Milan D. Smith Chosen Vice President; Directors Named

Norman Sorensen, chairman of the board of Country Gardens, Inc., Milwaukee, Wis., was elected 1959 President of the N.C.A.

He succeeds Edward E. Burns, president of Alton Canning Company, Inc., Alton, N. Y.

Milan D. Smith, president of the Smith Canning and Freezing Company, Pendleton, Ore., was elected 1959 Vice President.

Carlos Campbell of Washington, D.C., was continued in office as Executive Secretary-Treasurer.

The N.C.A. membership elected 24 Directors to new terms and 6 to fill unexpired terms; the terms of 40 members of the Board of Directors were held over.

President Sorensen and Vice President Smith were the unanimous choice of the Nominating Committee, of which William U. Hudson was chairman. Mr. Sorensen's nomination was seconded by Dr. T. O. Goeres of Lodi Canning Co., Lodi, Wis.

Mr. Smith was nominated by Henry Hohwieser of Starr Foods, Inc., Salem, Ore., who is president of the Northwest Canners and Freezers Association, and seconding speeches were made by Max Lehmann of Northwest Packing Company, Portland, Ore., Don Martinelli of Lake County Cannery, Inc., Upper Lake, Calif., and by Mr. Hudson.

Norman Sorensen

Norman Sorensen was born into the canning industry in 1905 at Gillett, Wis., son of the late H. C. Sorensen who was one of the founders of the Gillett Canning Company at Gillett and the Coleman Canning Company at Coleman, Wis.

He had his schooling in the public schools of Gillett and at the University of Wisconsin, class of '29, where he majored in commerce. During his student years he worked vacations and holidays in and around his father's plants. His first experience in canning was as a water boy to the field harvesters.

His N.C.A. service began in 1937 with a two-year term as Chairman of the Wax and Green Bean Section. He was a member of the Board of Directors from 1940-42, and Chairman of the Beet and Carrot Section in 1944. His Committee service includes Pricing Formula, 1944; War Planning, 1945-46; Public Relations, 1949; Labeling, 1953-54; Convention, 1954; Consumer and Trade Relations, 1955-57 and Chairman the last two years. During the World War II emergency, Mr. Sorensen was a canning industry representative in the Processed Fruit and Vegetable Section of the O.P.A.

For a quarter of a century, Mr. Sorensen has been an active contributor to the canning trade journals of valuable editorial and feature articles.

He is a charter member of the Institute of Food Technologists, is currently a member of the Milwaukee Athletic Club, a director and vice president of the Gillett State Bank for a number of years, and a former president of the School Board there.

Milan D. Smith

Milan D. Smith, son of veteran canner and life-time member of N.C.A., Albert T. Smith, has been an active business executive in the canning industry since 1941, interrupted only by a three-year period of service (1954-57) as Executive Assistant to Secretary of Agriculture Ezra Taft Benson. Milan Smith is president of the Smith Canning and Freezing Company, Pendleton, Ore., and of other food packing concerns in Lewiston, Idaho, and Milton-Freewater, Ore.

Born in Clearfield, Utah, in 1919, Mr. Smith received his higher education at University of Utah and George Washington University, in Washington, D. C. Following his marriage in 1941 he took up the operation of his canning and freezing interests, and the large agricultural holdings of these firms in Oregon and Washington. He still serves as a director of his father's canning firm, Smith Canning Company, of Clearfield, Utah.

When he began his service with Secretary Benson, Mr. Smith moved his family of seven children to Washington. During his USDA career he served concurrently as Special Assistant for Cabinet Coordination and the Committee Management Office. He was of great assistance to N.C.A. on the occasion of Secretary Benson's several appearances at Conventions and Board meetings. Upon his leaving his duties at USDA, the Secretary of Agriculture issued the following statement:

"During his three years of government service he has in every way successfully and energetically carried out the difficult responsibilities of the top policy level position of Executive Assistant. He has my best wishes and congratulations on his demonstrated



N.C.A. Meetings

The midyear meeting of the N.C.A. Board of Directors will be held May 21-22 at the Sheraton Park Hotel in Washington.

The 1960 N.C.A. Convention will be held January 18-23, in Miami Beach, with headquarters at the Hotel Americana.

efficiency and outstanding management abilities."

Currently he is serving as vice president of the Northwest Canners and Freezers Association and as director of the National Association of Frozen Food Packers.

In addition to his business career, Mr. Smith has been an outstanding leader in church and civic affairs. As a member of the Church of Jesus Christ of Latter-Day Saints he served as missionary from 1939 to 1941 and bishop of Pendleton, Ore., ward from 1942 to 1950. He then served as president of the church area in eastern Oregon, and, after moving to Washington, D. C., was president of the metropolitan area there.

His list of civic activities is impressive: president of the Pendleton Rotary Club, district governor of Rotary International, chosen first citizen of Pendleton in 1950 and first junior citizen of Oregon in 1951, president of County Community Chest, member of the National Council of the Boy Scouts of America, County Republican Executive Committee, past-president of the Pendleton Chamber of Commerce, and a member of several committees appointed by the Governor of Oregon.

MILAN D. SMITH
1959 Vice President



Statement on Taking Office as President

**By Norman Sorensen,
1959 President,
National Canners Association**

Thank you for electing me President of our splendid Association.

The presidency of the National Canners Association is the highest honor the industry can bestow upon one of its members. In accepting the responsibilities of the office, I wish to acknowledge that this honor, in a large measure, is a proper recognition of the greatness of the Wisconsin canning industry. I want to assure all of you that it is my earnest desire to represent our industry diligently and with distinction.

You are aware, I know, that no president of N.C.A. can perform notable administrative deeds during his short term of office. Fortunately, it isn't necessary that he should, because the important day-to-day affairs of the Association are in the capable hands of Carlos Campbell and his competent staff. Under the direction of our Board of Directors and aided by committees chosen from all segments of the industry, our Executive Secretary and the staff provide the necessary continuity to the many important projects our Association undertakes.

Nevertheless, I am eager, as I am sure every N.C.A. President before me has been, to make a real contribution to our great industry. I have thought at some length about the opportunities for service to the Association, and I would like to touch briefly on two points toward which I want to direct whatever talents God has given me. It will be my purpose (1) to help cement membership relations, and (2) to make the title canner more highly respected and honored in the eyes of the world, and our products held in high regard.

First, I hope I can, even in some small way, help to bring about a better understanding—and therefore a better working relationship—among the members of our industry. I am keenly aware of the great diversity of interest within the widely-spread members of our Association. It is too much to hope, I suppose, that a group as large as ours can be in complete harmony on every problem at all times. Yet, every time we have completed some significant accomplishment I have saluted Carlos Campbell's talent for bringing effective unity out of such manifest diversity of interest. It is my ambition to aid in broadening those areas in which we can work together and be most productive because of our group action.

As my first official act therefore I invite the canners of the nation who are not presently members of N.C.A.

to join us and help in solving those industry problems which are theirs as well as ours. I am mindful that it is the strategy of the foe to divide and conquer. Wouldn't it be foolhardy to employ this strategy against ourselves? Rather, I urge all canners to join with us now to create a more favorable atmosphere in which each of us can work most productively.

My second point is that I would like to help increase the stature of canners and the prestige of our products. Through the ages, feeding the multitude has been a noble undertaking. Canned foods have been essential in waging wars. I suspect they have played a larger part in maintaining peace than is generally acknowledged.

We can be happy that the use of our products in the modern home has become a commonplace event. But it does tend to cause consumers to take us and our products for granted. Because of this it would be well for us constantly to seek new ways to demonstrate to those consumers how we add to their comfort and to the economic well-being of the nation. Yes, we can be truly proud of our service to mankind. The story of that service should be told—it must be told—again and again so long as we have products to sell.

As we go on to the important events of this convention, I want to say again that I am deeply grateful for the privilege of serving as your president. I earnestly hope you will give me your counsel and your whole-hearted support in order that we may continue to have a strong Association with a purposeful program.

NORMAN SORENSEN
1959 President



N.C.A. Board of Directors

At the Annual Meeting the N.C.A. membership elected 24 to three-year terms on the Board of Directors and 6 to fill unexpired terms. Together with 40 holdover members, following is the Board as now constituted:

DIRECTORS ELECTED FOR A THREE-YEAR TERM

- J. P. Arthur, Shenandoah Valley Apple Cider & Vinegar Corp., Winchester, Va.
 - Luke F. Beckman, The Minster Canning Co., Minster, Ohio
 - K. S. Benedict, Alexander & Baldwin, Ltd., San Francisco, Calif.
 - Paul Benson, Green Giant Company, LeSueur, Minn.
 - F. Webster Browne, Snow Flake Canning Co., Brunswick, Maine
 - S. B. Bush, Bush Bros. & Co., Dandridge, Tenn.
 - David L. Dulany, John H. Dulany & Son, Inc., Fruitland, Md.
 - J. J. Edwards, Besco Products Co., Zebulon, Ga.
 - Robert K. Free, Hungerford Packing Co., Inc., Hungerford, Pa.
 - Stary Gange, Pacific Olive Co., Visalia, Calif.
 - Stephens J. Lange, Owatonna Canning Co., Owatonna, Minn.
 - Lewis H. Moore, L. H. Moore Canning Co., McAllen, Texas
 - Gary Morgan, John C. Morgan Company, Traverse City, Mich.
 - O. V. Otteson, Friday Canning Corp., New Richmond, Wis.
 - Earl A. Randall, North Ogden Canning Co., Ogden, Utah
 - P. V. Rea, United States Products Corp., Ltd., San Jose, Calif.
 - Gus Robert, The Cudahy Packing Co., Omaha, Nebr.
 - P. A. Schmitt, Stokely-Van Camp, Inc., Indianapolis, Ind.
 - George C. Seybolt, Wm. Underwood Co., Watertown, Mass.
 - Farmer Smith, Stayton Canning Co. Cooperative, Stayton, Ore.
 - Robert E. Snively, The Illinois Canning Co., Hoopston, Ill.
 - Edward C. Steele, The Red Wing Company, Inc., Fredonia, N. Y.
 - S. G. Tarrant, Pacific American Fisheries, Inc., Bellingham, Wash.
- DIRECTORS ELECTED TO FILL UNEXPIRED TERMS**
- Fred C. Black, Black & Gay Canners, Inc., Thomaston, Maine
 - Max J. Gorby, California Marine Curing & Packing Co., Terminal Island, Calif.
 - Earl W. Kale, C. W. Kale Canning Co., Everson, Wash.

Alfred A. Morici, Contadina Foods, San Jose, Calif.

Sherman Morse, Jr., Beech Nut-Life Savers, Inc., Canajoharie, N. Y.

John Shafer, Hawaiian Pineapple Co., Ltd., San Jose, Calif.

Ryland Thomas, Griffin Manufacturing Co., Muskogee, Okla.

DIRECTORS WHOSE TERMS HELD OVER

- W. F. Allewelt, Jr., Turlock Cooperative Growers, Modesto, Calif.
- Aubin R. Barthold, Alaska Packers Association, Seattle, Wash.
- A. L. Bilgore, David Bilgore & Co., Inc., Clearwater, Fla.
- Ben F. Counter, Fort Lupton Canning Co., Fort Lupton, Colo.
- J. Burleigh Crane, Jasper Wyman & Son, Millbridge, Maine
- A. L. Desmond, F. E. Booth Co., Inc., San Francisco, Calif.
- James R. Draper, Draper Foods, Inc., Milford, Del.
- Robert A. Friend, Friend Brothers, Inc., Melrose, Mass.

1959 Finance Committee

The personnel of the Finance Committee was approved at the Annual Meeting. As announced by President Sorenson, it is as follows:

- Edward E. Burns, Alton Canning Co., Inc., Alton, N. Y. *Chairman*
- H. J. Barnes, Kaysville Canning Corp., Kaysville, Utah
- John L. Baxter, Snow Flake Canning Co., Brunswick, Me.
- A. Edward Brown, Michigan Fruit Canners, Inc., Benton Harbor, Mich.
- E. B. Cosgrove, Green Giant Company, LeSueur, Minn.
- Howard T. Cumming, Curtice Brothers Co., Rochester, N. Y.
- Ralph O. Dulany, John H. Dulany & Son, Inc., Fruitland, Md.
- A. M. Erickson, Hawaiian Pineapple Co., Ltd., San Jose, Calif.
- Peter M. Filice, Filice & Perrelli Canning Co., Richmond, Calif.
- William H. Foster, Stokely-Van Camp, Inc., Oakland, Calif.
- William A. Free, Sr., Hungerford Packing Co., Inc., Hungerford, Pa.
- Robert A. Friend, Friend Brothers, Inc., Melrose, Mass.
- G. Sherwin Haxton, Haxton Foods, Inc., Oakfield, N. Y.
- Fred C. Heinz, H. J. Heinz Company, Pittsburgh, Pa.
- William U. Hudson, Gerber Products Company, Oakland, Calif.
- S. M. Kennedy, Consolidated Foods Corp., Chicago, Ill.
- Leo M. Gleason, G & M Food Products Co., Des Moines, Iowa
- George Gooding, California Packing Corp., San Francisco, Calif.
- Henry M. Haserot, Jr., Hawaiian Canners Co., Ltd., Kapaa, Kauai, Hawaii
- S. F. Hammond, Stokely-Van Camp, Inc., Celina, Ohio
- Henry G. Hohwiesner, Starr Foods, Inc., Salem, Ore.
- Dale G. Hollenbeck, Thornton Canning Co., Lodi, Calif.
- Robert Hutchinson, Michigan Fruit Canners, Inc., Fennville, Mich.
- Frank A. Jugler, South Ogden Products Co., Ogden, Utah
- M. E. Knouse, Knouse Foods Cooperative, Inc., Peach Glen, Pa.
- Edwin C. Kraus, Big Stone Canning Co., Ortonville, Minn.
- W. Allen Markham, Markham Bros. & Co., Okeechobee, Fla.
- Robert C. McCracken, Treesweet Products Co., Santa Ana, Calif.
- Thomas D. McGinnes, Virginia Seafoods, Inc., Irvington, Va.
- Parker Mitchell, Jr., F. O. Mitchell & Bro., Inc., Perryman, Md.
- Adolph C. Ketzler, Bordo Products Co., Chicago, Ill.
- H. F. Krimendahl, Stokely-Van Camp, Inc., Indianapolis, Ind.
- D. P. Loker, Star-Kist Foods, Inc., Terminal Island, Calif.
- Roy G. Lucks, California Packing Corp., San Francisco, Calif.
- George B. Morrill, Jr., Burnham & Morrill Co., Portland, Me.
- Fred M. Moss, Idaho Canning Co., Payette, Idaho
- Maxwell N. Naas, Naas Foods, Inc., Portland, Ind.
- E. M. Nuckols, Campbell Soup Company, Camden, N. J.
- Louis Ratzesberger, Jr., The Illinois Canning Co., Hoopston, Ill.
- B. E. Richmond, Richmond-Chase Co., San Jose, Calif.
- Emil Rutz, Schuckl & Co., Inc., Sunnyvale, Calif.
- George C. Seybolt, Wm. Underwood Co., Watertown, Mass.
- E. W. Shineman, Jr., Beech Nut-Life Savers, Inc., Canajoharie, N. Y.
- James M. Shriner, The B. F. Shriner Co., Westminster, Md.
- John A. Snively, Snively Groves, Inc., Winter Haven, Fla.
- A. O. Verbeke, Libby, McNeill & Libby, Chicago, Ill.
- H. L. Wederts, Lakeside Packing Co., Manitowoc, Wis.
- J. B. Weiz, Oconomowoc Canning Co., Oconomowoc, Wis.

Arthur H. Noble, Ray Bros. & Noble Canning Co., Inc., Hobbs, Ind.
 J. B. Park, Brandywine Mushroom Co., West Chester, Pa.
 Robert L. Peterson, Big Horn Canning Co., Cowley, Wyo.
 Robert Pollock, H. J. Heinz Company, Pittsburgh, Pa.
 E. E. Richard, H. J. Heinz Company, Bowling Green, Ohio
 H. R. Robinson, Robinson Canning Co., Inc., New Orleans, La.
 C. A. Shuttleworth, Shuttleworth Foods, Inc., Warren, Ind.
 M. F. Smith, San Juan Islands Cannery, LaConner, Wash.
 Victor R. Smith, Smith Canning Co., Clearfield, Utah

William H. Stare, Stokely-Van Camp, Inc., Columbus, Wis.
 G. S. Suppiger, Jr., Brooks Foods, Inc., Collinsville, Ill.
 D. Thompson Swing, D. Thompson Swing, Inc., Ridgely, Md.
 A. O. Verbeke, Libby, McNeill & Libby, Chicago, Ill.
 Gordon J. Verhulst, Calumet-Dutch Packing Co., Sheboygan, Wis.
 Harlow Waggoner, Santa Clara Packing Co., San Jose, Calif.
 Norman L. Waggoner, Jr., Olney & Carpenter, Inc., Wolcott, N. Y.
 Newlin B. Watson, R. S. Watson & Son, Greenwich, N. J.
 Fred T. Wright, Beaver Valley Canning Co., Grimes, Iowa

of container, and a minimum standard of quality under the federal food law. To that end the Association advocated the inclusion of standard-making authority in the Federal Food, Drug and Cosmetic Act of 1938, has supported supplementary amendments to improve the standardization process, and has through its research laboratories intensively participated in the development of the many standards now effective for canned foods. It has done this in the firm belief that reasonable and objective canned food standards serve to protect the consumer, the grower, and the canner alike. The Association recommends to the Food and Drug Administration that the food standardization program be continued and expanded, and urges that an adequate budget be provided for effectively doing so. The canning industry, however, does not believe that the formulation of any standard of identity, or of any proposed amendment to recognize a new ingredient, should turn upon a demonstration that functional value or dietary need exists for any particular form of food or ingredient. Both the statute and sound policy combine to require that consumer acceptance of any wholesome ingredient, and consumer election as to those foods selected to supply particular dietary needs, remain free of administrative control.

PRESIDENT EDWARD E. BURNS

To Edward E. Burns the National Canners Association acknowledges its enduring appreciation for a year of splendid leadership. Outstanding as a second generation New York canner, he brought to the office of president a sagacious insight into industry problems, the courage to exert forthright leadership, and the gift of dynamic plain speaking ever clothed with courtesy. Experienced in both growing and processing, his previous wide and fruitful services in both state and National Canners Association activities made him abundantly qualified to lead the industry. His quiet zeal and sound judgment were exemplified throughout the successful performance of the arduous task of directing the affairs of this Association. For his unstinting effort, for his solid accomplishments in office, and for the warm friendship he generously offered to his fellow canners, every member of the industry will remain grateful.

N.C.A. STAFF

The varied and growing responsibilities of the Association, multiplying with each year, can be discharged only through the devoted and conscientious efforts of a staff determined to do its job well. The Association expresses its sincere appreciation to Carlos Campbell and his staff for their continued zeal, constant competence, and enthusiastic execution of their duties.

FEDERAL MARKETING ORDERS

A businessman's freedom to exercise individual discretion in a competitive market is the cornerstone of America's economy and an essential requirement for commercial growth. Any system of external controls invading that freedom and eliminating competition can be tolerated only under emergency conditions and in the face of immediate national danger. For over 25 years this Association has resisted all attempts to include canning crops within mandatory Marketing Order legislation. Congressional endorsement of this industry position

INTERSTATE BARRIERS

Where food regulation affords benefits to consumers, it is vigorously supported by this Association. But unnecessary or unduly cumbersome local requirements interfere with the free interstate distribution of wholesome and informatively labeled food products. State and local regulations that specify particularized labeling requirements, or that prohibit ingredients recognized by federal law, or that differently standardize products to reflect local preferences, serve only to hamper and to impede the necessary wide distribution of canned foods. This Association reaffirms its determined objection to any regulatory requirement that unnecessarily extends the adequate protections afforded by federal law and creates unwarranted trade barriers to the ultimate detriment of consumers, canners, and growers alike.

FOOD STANDARDS

For three decades the canning industry has sponsored and supported the promulgation and enforcement of mandatory standards of identity, fill

**GUEST SPEAKERS, THE ALLIED TRADES
AND THE PRESS**

A National Canners Association Convention can be successful only with the effective cooperation of many outside the canning industry. Our guest speakers, the allied trades, newspapers, radio, television, and the trade press have each largely contributed to the 1959 Convention. The Association is sincerely appreciative for all they have done, and directs the President and Board of Directors to convey its gratitude to each of them.

IN MEMORIAM

Again it is our solemn task to mark, however briefly, the passing of our friends and comrades in the industry. We pause to recall their friendly faces

and to record the contribution each has made to the lives of those who were privileged to work with them and to the industry they so ably served. In deep sorrow, we cherish the memory of:

Elmer P. Bostwick
Shell R. Clevenger
Clinton W. Davis
James D. Dole
J. W. Hathaway
Marc C. Hutchinson
H. P. Peterson
Montgomery Phister
H. Lyle Seaton
Joseph S. Shelly
R. L. Smith
John A. Snively, Sr.
John S. Souder
Charles W. York

nificance of what is going on. Anywhere—but certainly in a society that has served us all as well as this one has—the individual citizen's obligations are just as great as his opportunities. On Judgment Day—not only in the hereafter, but here—each of us citizens is going to be measured by the degree to which we recognized, embraced, and satisfied the requirements imposed by our opportunities.

NON-PARTISAN POLITICAL WORK

Perhaps it is fortunate for us businessmen that the non-partisan political work, which we should be doing anyhow for purely business purposes, represents the biggest and most immediate task. Even in purely political terms the best of party work comes second, and effective non-partisan political work has to come first; otherwise the voters will almost always have a choice only between bad platforms and between bad candidates put forward by both parties; and, in fact, each election will have been lost, so far as its effect on the usefulness of business to the public and so far as the public interest is otherwise concerned, long before even the selection of the nominees by the two parties.

The low estate of business in political circles, on which I am sure I need not dwell, is simply the final evidence of the low estate of business with people at the grass roots. Public servants don't think the recommendations of business can influence enough votes to make any difference at the next election.

Whatever else we may think of the good and bad ones among our public servants, politicians can all count. Unlike the manner in which you weigh the worth of the individual votes at one of your staff meetings, a dumb vote in politics counts just as much as a smart one. If there are more dumb than smart, "dumb has it." For while there are plenty of notable exceptions, politicians in general do not take anything approaching an "expendability vow." Success in politics is usually measured by success in getting elected and reelected. Hard as that is to take sometimes, I am for it as a guarantee of the freedom and authority of the public to guide its servants. So where any one or a few of us businessmen have something new or different we think public servants should do for the common good, we should not and usually will not get it done until a politically safe majority of the voters involved have first come to think it is for their own individual, as well as the common, good.

This involves, as already indicated, the acquisition by a majority of the public—with the help of sound and competent leaders who do lead—of a whole new education in economics, a whole new concept of the morals of our freedom, and a whole new knowledge and sophistication about politics.

How the Businessman Can Contribute to Better Government

**By L. R. Boulware,
Vice President,
General Electric Company**

Each of us businessmen has, I humbly submit, very definitely a two-fold obligation to try to contribute continuously his proper part toward ever-better government.

FIRST OBLIGATION

The first part of this obligation is due to the effect which government has, for good or bad, on how useful to themselves and the whole public the businessman and his associates can be in the activities of their particular business.

The businessman is certainly charged with bringing to the attention of all the immediate participants in the business, to the attention of all others who are directly or indirectly affected by the business, which usually means everybody, and to all these people's representatives just what action or inaction, just what favorable or unfavorable attitudes, just what confidence or fear will do to the usefulness of that particular business for all concerned.

This is non-partisan political activity which can be done legitimately and morally on business time and at business expense.

Fortunately, this non-partisan political work each of us businessmen needs to do—and the added managerial competence we need to acquire in order to be able to do it—represents exactly the investment we have long needed to make anyhow in order to deserve and have the better general understanding and "business climate" required for optimum profit, growth, security, technological advance, contribution to a higher level of living, and other such services in the direc-

tion of our being fully useful in both the social and spiritual sense as well as in the economic sense, to the whole public.

As one businessman now nearing retirement, I personally am more convinced every day that history is going to deal very harshly with me and most of my contemporaries—and with great justice—for having gone along for half a century still fancying we were doing our full duty at our work when there was compelling evidence all around us that we were neglecting these additional kinds of work we needed to do. We were blindly following our predecessors in doing what I impolitely call the "metal-cutting and paper-shuffling" part of our job as though it were our whole job. We didn't even sense that the content of the managerial job of each of us was changing and expanding and that this imposed urgent new requirements on us.

SECOND OBLIGATION

The second part of the two-fold obligation of each of us businessmen is to engage in partisan or party politics—not as a businessman as such, but as a private citizen on our own time and at our own personal after-tax expense.

Being a businessman doesn't bar any one of us from—or relieve us of the obligation of—performing the good citizenship duties which every individual citizen has for the preservation of our freedom and the advancement of our common well-being.

In fact, each of us as a businessman has a little or a lot more obligation than most non-businessmen simply because of the greater span of experience and observation open to us and the greater opportunity each of us thus has for helping our fellow citizens know and understand the sig-

Now we must keep in mind that there are still plenty of the customary human failings all along the line in business—probably still way too many to be very much credit to it. Plenty of continued improvement should be demanded and can be achieved in this area, and we certainly should leave no stones unturned in that direction. But, meanwhile, too many people in their various roles in relation to business and government are—on the basis of mountainous misinformation about business and government—damaging their own interest by withholding rather than giving cooperation in what is a common effort towards common goals; they are, at the same time, trying by artificial means to force a progress that is really being hindered by these very means to which we have let people turn.

This misinformation, which is keeping people from living now as well as they might be—and which is keeping them from making the personal investment toward living as well as they could in the future—is in such areas, for example, as the following twelve:

1. SOMETHING-FOR-NOTHING FROM GOVERNMENT

The basic down-to-earth political problem here in the U. S.—as around the world—is the preposterously false expectation people in the main have about government's fancied ability to give its individual citizens vast material benefits at little or no expense to them.

And this political problem is duplicated in, or compounded by, the business climate problem of people continuing to have just as false expectations about what business can deliver on this something-for-nothing basis as they do about what government can deliver.

Here in the U. S. very likely a majority of college graduates—as well as a majority of the rest of the public—believes something for nothing is available, and that government can get it for them direct or through business.

Democratic and Republican candidates and office holders, with all too few exceptions, make what are to me shockingly misleading statements and promises that only keep adding to the voters' already dangerously false expectations of something for nothing from government and business.

To mask the bankruptcy of their promises, public servants employ and promote inflation and they damage freedom, right while falsely claiming that these very measures they are taking will prevent such developments.

We may be right now up against the something-for-nothing crisis of all time. Washington is full of Senators and Congressmen who each feel that their particular constituency back home is demanding that the particular representative bring back from the

federal government more than that particular constituency pays to the federal government. Too many of the legislators seem to feel that, if they do not at least appear to meet this utterly preposterous demand, they will not be reelected. And, in the absence of an improved public understanding between now and the next election, I think they are right.

But how unbelievable the situation is! We open with a \$12 billion deficit that hasn't yet shown up in new government borrowing and freshly higher consumer prices—and the government is already having trouble selling any long term securities to refinance the horrifying amount of short and long term maturities that are upon us from old unpaid borrowings. We are about finishing the job of pricing our products out of the foreign market; foreign competitors are, at last, importantly threatening jobs here; and foreigners for the first time in a hundred years are losing their confidence in the U. S. dollar itself. We are in deep trouble—and not from Russian brilliance or force but from our own ignorance and weakness among us low and high alike. In the face of this, we are about to funnel a whole lot more of what should be private spending through the wasteful hands of government and are not going to have the wisdom or courage to pay the bills through direct taxes. Instead we are going to pay them in the brutal hidden tax of inflation that will have to be included in the higher prices for which business will then be blamed.

We are apparently going to have federal aid to education, so that "poor" people in Alabama, Mississippi and Arkansas, who theoretically can't stand the cost of schools, can have help from other areas with presumably surplus school-purpose funds such, perhaps, as Philadelphia, New York and Detroit. Then we are apparently going to have federal housing, federal aid to new jet airports, federal financing of the face-lifting of downtown business sections, and aid to "distressed areas" in such cities, probably, as the same Philadelphia, New York and Detroit which are theoretically too poor to pay this cost which is now presumably going to be paid out of the surplus housing, airport, face-lifting and "distressed area" aid funds of the suddenly better-off farmers and small town citizens of Alabama, Mississippi and Arkansas.

When everybody gets through paying for what the government has done for everybody else—and done in the wasteful way only government can do it—the deficit that has to go as the tax of inflation into prices everybody pays will be enormous, and the pressure for a price control law to stop businessmen from trying to get prices that will cover their added inflationary tax costs will be enormous.

Whether we businessmen can do any good in the face of such a situation, I

do not know. But I for one don't see anything for us to do but to *try*. What is needed is for each of us to try to help all fellow citizens within the span of our contacts come quickly to understand such things as these:

That we lead a something-for-something life in this earth, and all efforts to turn it into something-for-nothing existence have ended in disaster;

That government has no magic resources and can furnish people only what it has first taken away from people; that free government is damaged and endangered when localities or individuals try to have their representatives bring home from government more than those localities or individuals paid to government;

That taxing business doesn't change any of the above, since so-called "taxes on business" are almost entirely taxes on consumers, because they are costs like materials and wages, and because they either reduce progress and jobs or raise prices and the cost-of-living;

That a government deficit is still a tax, will show up as the tax of inflation included in consumer prices, and should be recognized as not part of the price business is charging for "the goods" but as the price of government activities which the politicians didn't dare collect from people directly and visibly. For instance, there are 151 identifiable hidden taxes in the so-called price of a loaf of bread. About one-third of the price of an automobile is taxes collected as such by government, the other two-thirds of the price being for the automobile. Government gets the money to spend, and business gets the blame for the resulting high prices;

That government credit cannot stand so-called "creeping" inflation—and that the creep will speed up to a gallop—once enough people come to believe they should resort to a flight from money because they have ceased to trust the promises of both political parties that inflation is going to be arrested;

That price and other controls cannot cure inflation without choking the business and economic system to death, and that the only way not to have inflation come out the price end is not to let it get in the cost end.

2. SOMETHING FOR NOTHING FROM BUSINESS

College graduates and other people mistakenly think business can deliver something-for-nothing to an even greater degree than they think government can.

Here again we businessmen have certainly been most remiss in not helping people to understand business. Business is not buildings, or machinery, or inventory, or money. *Business is people*. *Business is people dealing only with each other . . .* dealing with the willingness of each, on a something-for-something basis, to give an

equal value in return for what he wants. Business thus concerns itself with things only through people . . . and then only as the result of people indicating they need or want those particular things. A business is simply a gathering of people who have volunteered to do things for each other.

These volunteers fill one or more of five contributor-claimant roles . . . as investors . . . i.e., riskers . . . of prior savings; as customers; as suppliers, distributors, or other participating businessmen; as employees; as citizens.

(These are not listed in the order of importance, since all are interdependent and thus equally essential to the process. They are listed here in the sequence in which they usually, but not always, "appear for duty" or "come to bat" in a business.)

I think the only reason for a business—as well as the requirement for its survival—is its ability to act as a highly creative clearinghouse where people can voluntarily come together and, aided by the superior ideas and facilities made available there, can do more for each other than if working separately as individuals utilizing only their own inner resources.

Lack of understanding of all this results in too many people assuming that there is "more in the wood" than there currently is, that somebody is getting enormously more than his share, that management could deliver vastly more benefits if it only tried or even cared.

The remedy is to help develop broad public understanding that a business can furnish people only what people have first furnished the business; that business represents, and is, the many and not the few; that it has no magic resources or anything to "give away"; that business cannot, voluntarily or under force, reward any one or more groups of its contributor-claimants with more or less than is coming to them, and still long survive to supply the desired better values, jobs and satisfactions.

3. NEEDS VS. WANTS

Even while operating under the foregoing false illusions, we as a people work further at cross purposes with our own interests because we also do not understand the difference between needs and wants. We work maybe only one hour a day on the average here in the U. S. to supply our actual needs of existence. We work the rest of the seven or so hours a day to provide extra human or emotional satisfactions in such things as form, color, taste, aroma, fashion, dignity, status, distinction. Fresh excitement, emotional exhaustion, or just mistakes in what will seem to people as "the thing to do" can produce wide swings in sales and employment on specific items. Also demagogues can help people feel awfully

sorry for themselves about theoretically not being able, for instance, to pay for their so-called "health needs", right when the medical expenses of the whole country total only about \$8 billion—which happens to be almost exactly the amount paid for the pleasures of tobacco and alcohol. Our pleasures become our fancied needs which we are willing to pay for ourselves; our more actual needs we want paid for by the government—meaning by some magic or by some other people somewhere else.

4. PRIORITY

This mistake in priority just noted in the pleasurable tobacco and alcohol over the presumably more necessary



L. R. BOULWARE

health considerations naturally carried over into the conduct of our public servants. We see right now an advanced case of violation of the old hard rule of life about putting first things first. Instead of taking care first of our vital needs in the defense area and then seeing how much we had left, or how much we would be willing to borrow and inflate, to cover our wants or lesser needs in the government-providing-for-its-citizens field Congress has taken up first federal housing, federal aid to education, and federal aid to new jet airports.

5. HOW WE LIVE WELL AND CAN LIVE BETTER

Basic to all this is the fact that we as a people do not recognize how we achieved our superior level of living as compared with all others elsewhere, and how we can raise that level of living as we go on into the future. We have lost sight of the fact that the essence of our American enterprise system is the freedom and incentive of the individual to save, risk, and

compete . . . to excel . . . to do better than we thought was our best and then be properly rewarded from the standpoint of what is in the balanced best interests of all concerned—according to their own free-market and free-person ideas.

We cannot live better by seeking security the negative way through avoiding efforts to compete and excel, through resisting better ways to do things, and through forcefully dividing up, in an arbitrary way, the things that are being produced—and thus killing off the arm-lengthening ingredient, incentive, that makes the whole difference.

For over 60 years we have been passing laws to prevent monopoly and insure competition in business. The result has, in general, been good . . . good for all who participate in and are affected by business.

Recently, however, we have been passing a new kind of law aimed at lessening competition between individuals, businesses, industries and communities—to the end of protecting or subsidizing the inefficient, or the inactive or the unneeded . . . of giving so-called "security" against the progress in values forced by competitive ingenuity and diligence.

We have been through this with the farmers—keeping everybody's food costs way higher than they otherwise would have been, keeping everybody's total of direct and indirect taxes way higher than otherwise necessary, and paying 3 or 4 million people to keep on uselessly doing things which we not only did not want done for us but which were also making us very expensive problems at home and enemies abroad—right when the 3 or 4 million could have been doing things we did want done for each other.

We are about to go through this now—or start through it to our destruction—by having the farmers (and any others outside the cities) finance a subsidy to the presumably few cities that are the so-called "distressed areas"—which, by the time the log-rolling process is completed—will likely number almost 438, or one for each congressional district.

But the competition-avoidance case most in point these days is the effort to protect certain workers from having to compete like the rest of us, the legalizing of a monopoly in the labor market, and the countenancing of compulsory financial support by workers for union officials in the latter's political and other activities that are contrary to the wishes of so substantial a number of those forced to supply the money. This combination of unusual privileges has resulted in union officials having and effectively using

(1) Monopoly economic power to force wages (price of labor) way above what the free market indicates

(with the inevitable consequences of either unemployment or inflation or both) and

(2) The accompanying political power to force monetary policies on government that will accommodate the inflation in the wages along with the companion inflation in other related prices—this in an effort to avoid or at least delay the unemployment caused by pricing labor above the market.

6. POLITICAL PARTY LABELS

We businessmen—as well as all other citizens—just must get over being so unsophisticated about party labels as such. While there are happily some outstanding exceptions, representatives of both major political parties now too generally campaign on substantially the same platforms and act substantially the same in office. The problem lies in what people believe at the time the platforms are adopted and the candidates selected. The candidates of both parties are trying to please the electorate in the light of its present information and misinformation.

Two lessons from this seem obvious. First, the important difference is usually not between the parties or candidates but between where the public is and where it ought to be. Second, the important change cannot usually be made during the short period of a campaign. The public has usually lost the election before even the nominating conventions—no matter who is subsequently elected. The time to win the next election on the economics and issues is before the next actual election campaign starts. Then both parties will run on better platforms and the public will have won regardless of which party or candidate wins.

7. WITHERING OF FREE SPEECH

One of the reasons for the public's going along so unthinkingly with unsound economics, and with misconceptions about business, is that favorable treatment of something-for-nothing economic and of anti-business attitudes have so long been prevalent and growing in the press, on radio and T.V.—while any public support for sounder ideas has been fading away. It is increasingly getting to be considered imprudent to speak up on the sound side, and I believe free speech itself is endangered as never before in this country. I think this increasingly "bad press", which business and sound economics get with too few exceptions, is entirely or largely the fault of us businessmen. I think we could do something—or more—about it if enough of us would devote ourselves adequately to the problem in the public interest. But we have let the situation get so bad that business will probably have to go first to itself and the public with a sustained cam-

paign in other and more expensive circulation media than the popular press before it becomes "good publishing" and "good broadcasting" for enough businessmen in those communication businesses to offer the general public a more balanced economic and political diet.

8. LAW ENFORCEMENT

An important factor contributing to the continued misconceptions on the part of the public—as well as contributing to the direct damage to the public interest—is in the inexcusable and damaging double-standard of law enforcement that prevails in all too many communities. Pickets, car wreckers, dynamiters or other union-connected law-breakers are too generally immune not only to unfavorable publicity but also to applicable laws that are enforced for any such offense committed by any other citizen. There are happy exceptions, of course, but these are relatively few and not enough to relieve our problem. I will not dwell on this, as you and your associates and neighbors may want to spend 20 minutes on a law enforcement film that is now available from the Cecil DeMille Foundation in Hollywood.

9. TAX SOPHISTICATION

Once the size of the spending and of the consequent direct and indirect taxes has been reduced to the lowest total decreed or permitted by the majority of the voters, the method of levying and collecting those taxes then becomes all important. All known tax systems are more or less imperfect and debilitating, since they impose hardships on all citizens and, in greater or less degree, impair the strength and growth of the economy. A given amount of taxes, if unwisely levied, can add more than the inflation that would otherwise result, can put more than the necessary drain on the nation's capital resources and formation, can more than otherwise erode the character of the people, can do an extra undermining of the progress of industry and agriculture, and can increase the frustration of the very people who are trying to raise the level of living for all.

Thus the objective of a good tax system is to raise sufficient revenue to keep government budgets in balance, to distribute the burden equitably in full sight and understanding of the people who really pay the taxes, to add no inflation of itself, and to do a minimum of damage otherwise to the incentives, competition and confidence which protect our freedom of choice, supply our arm-lengthening capital facilities, and spark the progress we make in raising our level of living.

It will not become "good politics" with the majority back home to pass better laws until a safe majority of the voters not only have become

adequately educated in something-for-something economics and disgusted with "robbing-Peter-to-pay-Paul" morals but also have become tax-sophisticated to the point where they cannot be fooled or tempted or unwise aroused emotionally by outwardly "side-of-the-angels" tax proposals put forward either by purposeful demagogues or by well-intentioned but uninformed advocates who are unthinkingly fitting their performance to the misinformation or rationalized cupidity of their constituency.

My plea is that we each do our individual part to help the majority of us citizens acquire tax-sophistication both about tax proposals and about tax advocates. We simply must help people understand that the most expensive way in which already needlessly expensive government can tax is via the levies that take away incentives. Yet such taxes are the darlings of the demagogues. Unfortunately, such levies still have surefire appeal to prejudices and emotions because of appearing to tax sharply the very successful few for the claimed enormous benefit of the much less successful but always more "deserving" many. Actually, these emotional taxes take away the incentives and cut the usefulness of the few workers and investors who are most creative and productive in providing opportunities, satisfactions, and over-all increase in the level of economic and humanly satisfying living for the many.

The steeply graduated levies of the wrongly named "progressive" personal income tax—mounting to 91 percent—is an advanced case in point. This tax on incomes above \$10,000 yields only \$4 billion of the \$35 billion of personal income taxes collected.

The so-called "taxes on business" are another emotional tax case in point. Business is a clearinghouse—with no magic sources, but with people able to take out only what they put in. Taxes on business are taxes on people. These taxes inescapably show up in prices. And the number of hidden taxes—collected through business as "prices" of the goods—is simply fantastic.

I am, of course, for business performing any economic or other useful tax collection service people want done when they understand what is really being done. But our free system cannot long survive if the majority go on without a much stepped-up realization of who actually pays so-called "business" taxes.

10. MEETING THE ISSUES

We businessmen need to inform ourselves individually—and we need very much to help our fellow citizens keep themselves informed—about the current issues involved in legislative or administrative actions or proposals.

In behalf of its members any of our business associations can testify be-

fore law-making bodies and maintain appropriate contacts with government administrators. But it is a real mistake for members to expect, or even allow, their association staff to try to do all the testifying, lobbying, or other communicating. I am convinced that the most effective lobbying even for an association is usually that which is done by the individual members who have volunteered and have thoroughly prepared themselves with the staff's help.

But over and beyond such formal appearance, we individual businessmen must keep abreast of the issues significantly affecting business usefulness; spread the word as to how the common interest will be best served; rally the support of people as consumers, savers, workers and direct and indirect taxpayers; and be sure we are meanwhile practicing what we preach by writing, wiring and visiting our representatives in the local, state and national capitals as well as being certain to see them every time they are home on a visit.

11. MORALS

We businessmen need constantly to keep before ourselves—and to help the rest of the public keep constantly before itself—that our freedom and well-being is a moral issue just as much as it is a problem in economics or politics. We cannot be free citizens making free choices in free markets, and we cannot otherwise go around as free people doing so largely as we please, unless we not only know what is the right thing to do economically and politically but are also willing to do that right thing voluntarily not only when no policeman is standing over us but also even when no one is looking.

We citizens—as a matter of morals as well as obvious expediency—have to resist the insidious appeal of this robbing a few theoretically bad Peters to pay a vast number of theoretically good Pauls. It's awful easy for our natural cupidity and our prejudice against success to be rationalized into a righteous feeling that the new theft proposed is only a politically forced return of what has been previously stolen. But we simply have to learn to invest—here as in so many other fields of human activity—in the moral conduct required.

12. POLITICAL SOPHISTICATION

Finally, we businessmen need to keep ourselves alerted to the fact—and help our fellow citizens keep alerted to the fact—that politics is the art of serving the many, but that it is too generally practiced, with success, as the art of *appearing* to serve the many . . . to protect the always "righteous" many against the always "wicked" few . . . to get back by force from the few what has been "stolen" from the many. And I keep feeling that too many of us business

and professional people and other theoretical leaders have ourselves belonged to the "Little Bo Peep" school of political sophistication.

There is great need for us all to become *politically sophisticated* to the point where we have been proofed not only against the false ideas and intended misrepresentation of the wily demagog but also—and much more importantly—against the equally false and even more damaging fallacies put forward by well-meaning but misguided politicians, professors, clergymen, writers and commentators of influence and even too many businessmen.

I am, of course, for the vast majority of U. S. citizens having their government do what they, and not I, want done at whatever is the cost involved—once they have been honestly and fully exposed to the facts and once they know the cost to them individually.

I sincerely believe that once a majority of the individual citizens sees the current costs and consequences—and once these individuals see that the things they are theoretically getting "free" from government are practically all at their own expense and are not paid for by "business" or by other people way off somewhere else—then people will want less government, and, what they do want, they will insist on having as close home as possible. That is, they will want everything possible done by the individual instead of local government, then by local government instead of state government, and then everything possible of the remainder by state government instead of the federal government.

If we as a people don't quickly get the knowledge—and display the gumption and character—needed to stop this silly spending and inflation spree we are on, we will with great justice have our freedom and well-being dumped on the junk pile of history.

PARTY POLITICS

Now finally, just a word about the second big area of political action for businessmen—this time as private citizens. That is the area of partisan or party politics.

As already indicated, party politics and the support of individual candidates is a strictly personal matter, cannot be legally or morally done on company time and money, must be done by the individual citizen on his own volition in the particular party of his own personal choice, and can be done only on his own time and after-tax money.

In our General Electric program, we, of course, distinguish sharply between the work that can be done as company representatives and that which can and must be done only as independent individual citizens.

With it suddenly the fashion now for businessmen to get busy in politics,

the hard fact needs particularly to be emphasized over and over again that—for our system of individual freedom to be long effective—money for party political work must not come directly or indirectly from corporations or unions or farm organizations or trade associations or any other groups. This country already has too many self-appointed spokesmen for organized special-interest groups competing with one another in writing platforms, selecting and handling candidates, controlling campaign funds, and dominating public servants in office. If the party money comes in big chunks from a few organizations or even from a few individuals—or if the party work is long done by platoons of people under the pay and regimentation of the top command of few special-interest groups—our free system will perish.

Instead, political *party* work must be decentralized to the many citizens as *individuals*. These citizens must be in position to insist that any party platform, candidate, or office holder be guided by the composite of the varying wishes of the individuals in the area represented, and free from the dictation or pressures of any intermediate organization that seeks to subordinate individual interests and opinions to those of the head of the intermediate group.

To be able so to insist, the individual citizen must take his political responsibilities seriously and willingly contribute some of his after-tax money to the party of his choice. But money alone will not do the job. The responsible citizen has also to do the mental work and tedious legwork in properly influencing party platforms, in selecting good candidates, in getting them to run, in organizing the individual precincts, in becoming an effective personal salesman and helping others (particularly women) to do so, in persuading individual voters by separate personal contact as well as by the mass method, in getting those voters registered, and in getting such voters out on election day.

Obviously the businessman can sometimes be especially helpful in organizing, in budgeting, in running comprehensive campaigns or segments of such campaigns. But the aim should not be to start too high without the absolutely required prior apprenticeship at the grass roots. Undertaking to see, persuade and deliver 50 individual voters in our own precinct is the place for most any one of us to start.

A JOB WE CAN DO

In closing let me repeat again that I do not believe this hard and tedious job of good citizenship and survival is going to be—or can be—done for us and the country by some others way off somewhere else, while we businessmen continue to do only our easy and

familiar "metal cutting and paper shuffling."

The job cannot be done by business and other leaders talking only to each other, as we are doing here today. It cannot be done just at election time. It must finally be done in extended two-way discussions—continuously before as well as during elections—by about one teacher-leader to each ten citizens. It is thus inescapably a do-it-ourselves, practice-before-we-preach,

do-it-now assignment in leadership, statesmanship and citizenship.

I sincerely believe we businessmen can solve any problem and overcome any obstacles we think important enough to warrant our best. We just should not any longer be stopped or slowed in performing now in politics the same high order of public service which has been so characteristic of our other outstanding contributions to the well-being of the public.

Commission's current food study. Economists, accountants, and attorney-examiners by field work may supplement the questionnaire procedure. One hundred thirty-seven economic studies have been made by the Federal Trade Commission since its creation. Some of these studies have been very extensive and have taken considerable time.

As a result of some of these studies, either legislative or other corrective action has taken place. The Robinson-Patman Act came about as a result of the chain store investigation in the early '30s. The Securities and Exchange Commission Act was passed by Congress as a result of the public utilities study made by the Commission. Based on some economic reports, certain case action has resulted, as in the antibiotics matter, where several antibiotics manufacturers have been charged with law violations based on facts developed by the antibiotic study of last year.

CURRENT FOOD STUDY

On January 30, the Commission mailed to approximately 1,050 business organizations selling foods, questionnaires seeking information on how the food industry has been affected since 1948 by mergers, acquisitions, interlocking directorates, food manufacturing by distributors and by changing retailer-wholesaler relationships. Permit me to read the Commission's resolution initiating this study:

"Resolution

"Inquiry into the Competitive Methods and Practices Used in Marketing Food

"Whereas, a substantial percentage of all antimonopoly investigations by the Federal Trade Commission is of alleged violations of law by parties in the food industry; and

"Whereas, the Commission has received many complaints that in the evolution of food distribution in recent years there have developed tendencies to concentration of economic power, to collusive price action and to unfair competitive methods; and

"Whereas, there is broad public interest in preserving competitive free enterprise in the food industry and in preventing unfair methods of competition in that industry; and

"Whereas, it appears to the Commission that, for the reasons stated herein, and for the purposes set forth in Section 6 of the Federal Trade Commission Act, an investigation of the food industry by the Federal Trade Commission would be in the public interest;

"Now, therefore, be it resolved that the Commission in the exercise of the powers vested in it by Sections 6 and 9 of the Federal Trade Commission Act, and with the aid of any and all powers conferred upon it by law and any and all compulsory processes available to

What Is the Federal Trade Commission Doing in the Food Industry?

By Sigurd Anderson,
Federal Trade Commission

I bring you the greetings of the Federal Trade Commission of Washington, D. C. I do not come here today as an expert on the canning and packing of foods, though like all Americans I have been packing food for years, but as a consumer only!

I represent a federal agency that is chargeable with certain industry regulation in connection with competition and certain business acts and practices. This agency is the Federal Trade Commission. With your permission, I am going to develop this topic: "What Is The Federal Trade Commission Doing in The Food Industry?"

In view of the fact that I come here as a representative of the government, I am reminded of a chairman who introduced a certain government official in the following manner: "We are very happy to have the latest dope from Washington." Then, too, I hope that as a result of my discussion this morning, you will not be in the position of a lady who presided at a women's club meeting where a government official spoke at great length and with some depth on a rather difficult proposition. This kindly lady, in thanking him for his efforts, told the group: "The matter which the speaker has just discussed has always confused me, but now after his splendid discussion, I am confused on a higher level." Which story in turn leads me to another government-industry situation where a federal official explained how much government costs the citizen of the country and then launched into a very lengthy discussion of what the government could do and could not do, and the chairman of that meeting, in acknowledging the speech of the government official, said: "After hearing this speech, we're sure lucky that we don't get all the government we pay for."

As you know, the Federal Trade Commission is a federal agency chargeable with the enforcement of laws dealing with competition. The

Commission's declared purpose is to keep business competition clean, honest and fair. The Federal Trade Commission has been called "The Watchdog of the Free Enterprise System." I do not need to tell this great gathering of American business leaders that competition is vital to our economy. Neither do I have to state that business competition should be clean and fair and honest, and that unfair and dishonest competition is repugnant to both the statutes and the rules of fair play. The activities of the Federal Trade Commission even in the food field are so many and varied that I cannot detail them to you, because Tommy Auster, your very knowledgeable General Counsel, strictly cautioned me that I had a time limit. I do, however, want to apprise you of some of the Commission's activities in the food field that may be of interest.

ECONOMIC STUDIES

One of the important functions of the Commission is to make economic studies. These studies are undertaken on request of the President or in response to congressional resolution or on order of the Federal Trade Commission. The studies are initiated where there is evidence that the public interest is affected by observed and reported situations. The authority for the Commission to make economic studies and reports is contained in its basic act, the Federal Trade Commission Act. These studies develop information about the economic community that is of help to not only the Commission but to industry, the Congress, and the Executive branch of the government. Here are some examples of economic studies that have been made by the Commission: Copper Industry; Motor Vehicle Industry; Interlocking Directorates; Antibiotic Manufacture; Newsprint; Chain Stores—1934; Wholesale Packing; Cigarette Shortage; Coffee; Agricultural Income; Tobacco; Sugar; Textiles; Petroleum, and others. Much of the information secured by these studies is developed from questionnaires of the type used in the

it, do forthwith proceed to investigate and study the integration and concentration of economic power at the retail level of distribution in the food industry, which investigation and study shall include consideration not only of the organization, business, conduct, practices, and management of corporations engaged in commerce and which sell food products at the retail level of distribution but shall also include investigation and study of corporations operating as wholesalers, manufacturers, distributors, brokers, or otherwise concerned with the distribution of food products in commerce to the extent that a consideration of their organization, business, conduct, practices, and management is relevant and pertinent to the aforesaid investigation and study."

These questionnaires were sent to three types of business establishments: (1) food chains, of which there are 250 operating 11 or more stores; (2) voluntary group wholesale grocers in the number of 600; and (3) retailer-owner food distributing groups in the number of 200. All three types of the above enterprises received questionnaires irrespective of where located or where operated.

Questionnaires were sent to all parts of the United States. Fifteen metropolitan areas were selected for intensive study. These areas are: Altoona, Pa.; Atlanta, Ga.; Bridgeport, Conn.; Denver, Colo.; Des Moines, Iowa; Fort Smith, Ark.; Indianapolis, Ind.; Lubbock, Tex.; Manchester, N.H.; Peoria, Ill.; Phoenix, Ariz.; Roanoke, Va.; Spokane, Wash.; Stockton, Calif.; and Utica, N.Y. In these areas, the competitive relationships between the chains, the voluntaries, and the co-ops will be studied carefully in terms of the present numbers and market shares and the trends which are evident in statistics of recent years. In effect, these areas will be placed under the microscope to bring out in sharp focus the kinds of relationships toward which the Commission's resolution is directed, which will mean increased light upon the all-critical subjects of concentration and integration. These questionnaires have an answer deadline of March 31.

The reason for this economic investigation into the food industry arose from the many complaints made to the Commission about concentration of power, collusive price action, and illegal competitive acts and practices in the industry. Many of those making complaints claimed that bad competitive practices in the industry are leading food people into chaos.

In this connection it may be of interest to point to figures from published sources which show that of the \$50,483,000,000 of foods sold at retail last year, \$18,573,000,000 or 36.79 percent, was sold by chain stores with 11 or more stores. It may also be of interest to note this bit of statistical in-

formation from the Census of Business: in 1939, there were 387,337 grocery stores in the United States; in 1954, there were 279,440 grocery stores. In a 15-year period 108,000 grocery stores disappeared.

As you know, several congressional committees have expressed a deep interest in this economic study.

At this stage, any comment on Federal Trade Commission action in connection with this food study would be impossible to make.

According to our Bureau of Economics, which is in charge of the study, this investigation probably will be the most intensive investigation into the food industry ever made by the Federal Trade Commission. According to staff members, questionnaires are being answered and returned at a goodly rate of speed. When all questionnaires have been received and tabulated, a report will be written. This report will be readied as soon as possible. The information resulting from these questionnaires should be most interesting and informative, as the food industry is probably the fastest-growing, the most dynamic, the fastest-changing, and the most complex industry in our country. We have come a long way from the day of the kerosene can with a potato on the spout and when anything in tin cans was regarded as ptomaine material, down to this day when America seems to live on canned foods for the stomach, canned music for the ears, canned blood plasma for the veins, and canned weather reports over the telephone.

THE BROCH CASE

Considerable interest has been expressed by the food industry concerning the Broch case (Henry Broch and Oscar Adler, copartners trading as Henry Broch & Co., Docket No. 6484). There was no significant dispute as to the facts in this case. Henry Broch & Co. is a Chicago brokerage concern which was engaged by a Canadian seller-principal under an agreement to sell apple concentrate at a 5 percent rate of brokerage exchange. Broch subsequently agreed with its Canadian principal to accept only 3 percent brokerage on sales to a particular large purchaser in order that this purchaser might receive a price lower than that afforded any other buyer. The full established price was maintained on sales to all other customers whether made through Broch or other brokers. On all other sales, Broch and all other brokers received their full brokerage. It was only on sales to the one favored customer made through Broch that the selling price and brokerage were reduced. This situation continued from the fall of 1954 at least until the time that hearings were closed late in 1956.

The Commission held that the Section 2(c) prohibition against passing on brokerage, or any allowance or discount in lieu thereof, to a buyer applies to brokers such as Broch who

represent the seller; that Broch had violated Section 2(c) by indirectly granting brokerage to the buyer by accepting a lower brokerage than that to which it was entitled with knowledge and in contemplation of the fact that the acceptance of such lower brokerage would be reflected in lower price to the buyer—just the same as though Broch had received its full 5 percent brokerage and had passed on a portion thereof direct to the buyer. The Commission, by unanimous decision, issued its order to cease and desist.

Broch petitioned the United States Court of Appeals for the Seventh Circuit to review the order of the Commission. The Court set aside the Commission's order. The Court's decision in setting aside the order was based on four distinct but related grounds. They are:

- (1) Section 2(c) of the Clayton Act does not cover a seller's broker;
- (2) The proceeding against the seller's broker was not in the public interest but related to a private grievance between rival brokers;
- (3) The acceptance of a lower commission by a broker in order to enable his seller-principal to quote a lower price to a particular buyer does not amount in substance to the payment of brokerage, directly or indirectly, by the broker to the buyer;
- (4) Sellers may reduce brokerage costs on particular sales and pass along such brokerage cost savings to buyers.

The decision is of considerable importance in the administration of the Robinson-Patman Act. The Commission is fearful that if sellers can reduce brokerage on particular sales and pass along savings thus made to the buyers, that large demanding buyers will be in a position to obtain preferential prices. It would, in the Commission's view, create a loophole in Section 2 of the Robinson-Patman Act. It would mean that brokerage could become the channel for price discriminations that might seriously affect the food industry. The Commission has a continuing interest in this case.

GENERAL COMMISSION ACTIVITIES IN THE FOOD FIELD

You may be interested in knowing of Commission activities in the food field insofar as complaints and orders are concerned. For the fiscal year ending June 30, 1958, a total of 86 antimonopoly complaints were issued; 33 of these dealt with food. During the same period, 45 antimonopoly orders were issued, and 26 of these dealt with food. During the fiscal year ending June 30, 1957, 55 antimonopoly complaints were issued, 21 dealing with food. During the same period, 31 antimonopoly orders were issued, 14 of which dealt with food. Deceptive

practice complaints and orders dealing with food matters during the two-year period were rather minimal in number. Over 90 percent of our 2(c) cases (brokerage) have concerned canners. It is obvious that in the antimonopoly field illegal practices by members of the food and grocery industry were conspicuous by their presence and not by their absence.

NATIONAL BRANDS—PRIVATE BRANDS

The Commission has not entered into this area or arena of activity. We have been invited to enter into the fray! But at the moment there does not appear to be any cogent reason for an expenditure of Commission funds in this area.

MERGERS

Section 7 of the Clayton Act deals with mergers. Prior to the amendment of this section in 1950, little activity was noted by the Commission. Since that date, the tempo of activity has stepped up noticeably. The reason for this increased activity is due to the fact that the recent amendments to Section 7 added assets for consideration of mergers to the old law which included stocks only. Another important amendment feature is that under the present law, two companies merging do not have to be in competition with each other.

As you know, there seems to be a merger spirit in the air. The "urge to merge" has become quite obvious. I really cannot accord this subject its due treatment because of lack of time. It is a real and interesting proposition. Mergers, like executions, are so permanent! Some mergers are legal, necessary and beneficial; others are detrimental to competition. I call to your attention that portion of the antimerger statute that reads as follows: "**** the effect of such acquisition may be substantially to lessen competition or to tend to create a monopoly."

This is very significant legal language. The Commission and the courts are busy interpreting this language. Some of the mergers that have been effected within the last several years have produced some rather amusing legal "marriages." For instance, that of a malt producer and a manufacturer of transformers, voltage regulators, etc.; a lace manufacturer and a manufacturer of electrical equipment; a manufacturer of undergarments for women and a hotel construction company; a manufacturer of fuel system accessories and a manufacturer of fishing lines, tennis rackets, etc.; a textile manufacturer and a metal working machinery company; a manufacturer of jalousies, windows and doors, and aluminum door thresholds and a dairy products concern; and a tire manufacturer and a motion picture producer. A prominent member of Congress once said in substantially these words: "If you

merge a pump company with a nickel company, you will have pumpernickel." You may ask the question, how many mergers are there in American industry? Federal Trade Commission economists have listed the following mergers that have some importance: 1954—613; 1955—846; 1956—905; 1957—941; 1958—899.

The greatest number of mergers noted by the Commission was 1,245 in 1929; the smallest number of mergers was 87 in 1939. Since 1950, the Commission has served 27 antimerger complaints. Since that time, the Commission has entered 7 orders, 5 of



SIGURD ANDERSON

which were consent orders. Twenty cases are now in various stages of litigation. Of these 20, 5 have been closed for the taking of testimony and in 6 others the case-in-chief has been closed. At the present time, about 100 mergers are being examined into at the Commission. Merger cases, as a rule, are time-consuming and hard-fought.

I am sure that the members of this organization are interested in the merger movement not only because members of this industry have merged in the past, or are now merging, or may merge in the future, but because many of the organizations with which you do business are affected by mergers. The Federal Trade Commission is not the only government agency dealing with the merger problem. The Antitrust Division of the Department of Justice is also engaged in antimerger work. There is close liaison between the Commission and the Department of Justice in connection with antimerger activity so there will be no duplication of effort.

PROPOSED LEGISLATION

The Federal Trade Commission is hopeful that the Eighty-Sixth Congress will provide certain statutory helps for the Commission to make more effective its program of law enforcement. The Commission is interested especially in the following:

(1) Premerger notification. This means that corporations seeking to merge would be required to make application to either the Federal Trade Commission or the Department of Justice prior to the merger. At the present time these two government agencies are compelled to discover mergers from newspaper accounts, trade journal stories and in other ways. The bills as introduced would require the agency reported to to advise the applicant within a certain period of time as to whether or not the merger would be considered such as to require further government action or that it could be consummated. Permit me to point out that at the present time it is possible to have proposed mergers submitted to either the Department of Justice or the Federal Trade Commission for clearance of such mergers.

(2) Injunctive powers in merger cases. At the present time the Federal Trade Commission does not have the power to enjoin a merger prior to its completion. This power does vest in the Department of Justice. It is felt that this power combined with the premerger notification would be of great benefit to the Federal Trade Commission. If a merger could be examined before completion so that advice could be given as to whether or not it was legal or illegal, it could prevent the situation of having to unscramble the merger if it was ultimately determined that it was illegal.

(3) Finalization of Clayton Act orders. At the present time, Clayton Act orders are finalized in a manner that takes time and is rather awkward in operation. For instance, if a Clayton Act case is brought and the Commission secures an order against the respondent, it cannot be finalized at that stage. When that same respondent commits another violation, then the Commission moves for finalization. Then, upon still another violation, the Commission may move for a penalty against the respondent. This is not a practical way of handling Clayton Act orders. The Commission has for a period of 20 years urged that Clayton Act order finalization be changed to make the law more workable.

VOLUNTARY PROCEDURES

During the last two years, the Commission has pressed hard for general industry cooperation with law compliance. Guides to provide help in the advertising of cigarettes and rubber tires were created and are in use. More recently, guides against decep-

tive pricing in any industry have been adopted. These guides have met with enthusiastic response. In fact, the Commission is very pleased with the display of industry and consumer determination to assist in a program to secure more truth in advertising. Special strong support has come from Better Business Bureaus, advertising groups, trade associations, business groups, and circulating media. The Commission favors these voluntary programs because they have certain definite advantages: (1) they alert industry and the public to responsibility under the law; (2) they give industry and business an opportunity to either get rid of or prevent certain illegal abuses without great expense and competitive disjoindness, made necessary by case attack by a regulatory body. These voluntary programs supplement our regular enforcement procedure.

The matter of the exercise of self-discipline in business is most important. Let me quote from no less an authority than the President of the United States of America, Dwight D. Eisenhower, who said in his State-of-the-Union Message in January of 1957:

"The national interest must take precedence over the temporary advantages which may be secured by particular groups at the expense of all the people."

I would also like to quote from a statement by David Fromson, a business leader of this country, who said in an article in *Dun's Review* for September, 1956:

"The best solution to the problem of government vs. business is for business to make a greater effort to keep its own house in order.

"As businesses engage in predatory and unethical practices, inevitable and compensating legal controls are generated. Conversely, as industries voluntarily assume sound ethical standards, there is a relaxation in regulations affecting their economic life.

"Protective legislation by the government in recent years has been merely the result of abuses and breaches of ethical awareness. The only way to prevent further inroads by government is for business itself to assume a greater ethical responsibility. I believe the trade association is the instrumentality that can best build up ethical standards of self-control, see they are adhered to, and plead business' cause before government."

CONCLUSION

The lessons of economic history should not be disregarded by American industry. Every regulatory act on the books today is the result of protests against certain abuses. Let

not the zeal of competitive activity become such as to cause businessmen to lose sight of the rules of fair play. Even as we have rules for the conduct of players in football, basketball, baseball, golf matches, and in card games, so, too, must there be rules of the game in the field of economic enterprise. The more violations, the more regulation follows. The leaders of American industry can do much to still the voices of those who complain about abuses that are affecting American business. It is the endeavor of the Federal Trade Commission to work with industry toward the end that a healthy economic climate can be made to prevail. The doors of the Federal Trade Commission in Washington, D. C., are open for those who wish to discuss their problems with the Commission and its staff. It is hoped that good advice will prevent later correction, litigation and expense. The public interest is more than just a high-sounding term.

It has been a pleasure to come here today and to sketch for you briefly some of the activities of the Federal Trade Commission in its endeavors to carry out its duty to protect and guard competition so that it may be fair and clean and honest. I commend the leaders in this industry who have labored valiantly to maintain the highest competitive standards in the best tradition of the American businessman.

Officers Elected by Other Associations

Officers of other associations elected at their annual meetings during the Convention period:

CANNING MACHINERY AND SUPPLIES ASSOCIATION

President—John C. Swift, White Cap Company, a subsidiary of Continental Can Company, Inc., Chicago; vice president—William E. Vaughn, American Can Company, New York City; secretary-treasurer—W. D. Lewis, Washington, D. C.; assistant treasurer—Jeanne Savin, Washington, D. C. (all reelected).

THE FORTY-NINERS

President—Frank S. Langsenkamp, F. H. Langsenkamp Company, Indianapolis; vice president—Edward E. Judge, *The Canning Trade*, Baltimore,

Md.; secretary-treasurer—Charles E. Schick, Waukesha Foundry Co., Waukesha, Wis. (all reelected).

OLD GUARD SOCIETY

President—Nicholas J. Janson; Nicholas J. Janson, Inc., Cincinnati; first vice president—Robert L. Eirich, H. S. Crocker Co., Inc., Baltimore; second vice president—Fred M. Moss, Idaho Canning Co., Payette, Idaho; secretary-treasurer—John Dingee, Haddonfield, N. J. (reelected).

YOUNG GUARD SOCIETY

President—Tyrus R. Young, Chas. G. Summers, Jr., Inc., New Freedom, Pa.; first vice president—Robert B. Connelly, American Can Company,

Indianapolis; second vice president—David J. Nay, Selected Spices, Inc., Detroit; third vice president—A. W. Dutcher, John H. Dulany & Son, Inc., Fruitland, Md.; secretary-treasurer—Herb Shek, H. S. Crocker Co., Inc., Baltimore, Md. (reelected); recording secretary—Arthur J. Judge, *The Canning Trade*, Baltimore, Md. (reelected).

ASSOCIATION OF CANNERS STATE AND REGIONAL SECRETARIES

President—Robert J. Marsh, Cannery League of California, San Francisco; vice president—Charles R. Carry, California Fish Canners Association, Inc., Terminal Island; secretary-treasurer—Dr. Wilbur A. Gould, Ohio Canners and Food Processors Association, Worthington.

MULTIPLE PACKAGING of Canned Foods

MODERATOR: DR. HOWARD L. STIER, Director, N.C.A.
Division of Statistics

DISCUSSION: Trends in Multiple Packaging and How They Will Affect Canned Foods—CHRIS FITZGERALD, Editor, *Packaging Parade*, Chicago

DISCUSSION: Factors That Affect Response to Multiple Packaging—WILLIAM DEMPSEY, Market Development Manager, Container Corporation of America, Philadelphia

DISCUSSION: Results of The Food Topics Multi-pack Study—LEN KANTER, President, Staff Super Market Associates, Inc., Irvington, N.J. (formerly Editor of *Food Topics*)

DISCUSSION: Results Obtained by Canners Who Have Used Multiple Packaging—

EDWIN C. KRAUS, President, Big Stone Canning Co., Ortonville, Minn., and

JAMES E. GLOVER, General Manager, Coastal Foods, Division of Consolidated Foods Corp., Cambridge, Md.

DISCUSSION: Multiple Packaging of Canned Foods from the Retailer's Viewpoint—VAL BAUMAN, Vice President, National Tea Company, Chicago



DR. HOWARD L. STIER

Trends in Multiple Packaging and How They Will Affect Canned Foods

By Chris Fitzgerald,
Editor, *Packaging Parade*

As an editor it is my function to observe—to listen and to watch—and while observation is not the same as actual participation, it is sometimes helpful to hear the opinions of someone who is not quite so close to your problems as you yourself are. Looking at this business of multiple packaging, one is tempted, depending on his viewpoint, either to say too much for it or too much against it. Here then are some observations on multiple packaging which I hope will contain neither an excess of praise nor an excess of caution.

We all recognize how the role of packaging has been expanded tremendously with the growth of self-service merchandising. It is wrong, however, to expect more of a package than it can deliver, and I think that for all its proven effectiveness in certain areas, the multiple package in particular has been viewed at times as possessing some sort of magic charm by which it casts a spell over the shopper, compelling her to pick it up. A prominent designer has even suggested that as a woman enters a supermarket she goes into something resembling a hypnotic trance and that her purchases are dictated largely by the effectiveness of the various stimuli that beset her—poor thing—as she makes her way through the maze of

aisles, shelves, products and packages. While there might be some truth in this view, we would be misled, I believe, to think that the lady can be classed 100 percent along with guinea pigs and laboratory mice.

In connection with multiple packaging, I am sure that none of you believes that this package may be used with universal success. The National Canners Association's Philadelphia Project tests illustrated quite adequately that the performance of multi-packs varies widely from one category of product to another. Also of great importance was the evidence provided by the studies that the sales success of multi-packs is closely tied to the number of units involved in the package.

These variations in performance reveal the fact that it all depends upon the product and upon the consumer's need or desire for that product. In this connection, I seriously question the theory that multiple packaging can do for canned vegetables, fruits and products what it has done for soft drinks and beer. The degree of effectiveness depends on the consumption pattern, which is a question, sometimes, of biology or physiology. Speaking for myself, my capacity for consuming beverages is much more elastic than my capacity for baked beans or Bartlett pears.

Now, before you get the idea that I am "ag'in" multiple packaging, let

me say that I believe that multi-packs can be very effective in certain applications. One particular observation I have made, and it isn't one that I can back up with tests, is this: the multi-pack would seem to increase sales more dramatically for the less frequently purchased items than it does for products purchased every week or so.

If a product is almost always on the shopper's list, whether this list is

CHRIS FITZGERALD



written down or is purely mental, sales might increase slightly but probably not enough to offset the additional cost of multiple packaging. Where a family's need for a product is fairly constant, as for instance it might be for baby foods or pet foods, there would appear to be little area for dramatically increased sales, unless of course it were for one manufacturer's brand over another. It is the product which is purchased with less frequency and less regularity to which multiple packaging would seem to offer its greatest advantage.

Canned nuts, for instance, seems to me to be a logical candidate for multiple packaging. Cranberry sauce, too, and tuna fish. Summing up this idea, I would say that multiple packaging appears to offer moderate to small advantage when used for products that

have very low or very high rates of turnover. In the one case the shopper doesn't want the product badly enough so she won't buy more of it than she has to. In the other instance, she wants and buys so much of the product without the benefit of multiple packaging that there is little to be gained by using it.

The many, many products which fall between these two extremes of very high turnover and very low turnover would seem, many of them, to have very definite possibilities for dramatic sales increases through the use of multiple packaging.

When all is said and done, however, no matter what your product is, the effectiveness of multiple packaging will depend, in the end, on how you yourself use it.

The multi-pack idea was first developed as a handy carton for the housewife to lift from grocery store shelves, and in turn, to carry home. The items first put in multicartons were products which the housewife bought in quantity anyway—soft drinks and beer.

As time went on, it was natural for marketing men to come up with the idea that other products would sell too, if given enough drawing power through the bill board effect to attract more shoppers. That's when gimmicks and price breaks started. Merchandisers said: "Why not offer a price break to attract the thrifty shopper?" "Or a brush or dish towel for the shopper who wants a free gift?" The results were obvious. Everybody got into the act.

Today you'll find over 200 such deals around the country during any given week. Naturally, this caused some packers to become discouraged with multiple packaging. They found that only short-term competitive advantage could be gained through these special deals and gimmicks. In addition, they found these gains getting smaller with each progressive promotion.

There is a time and a place for such promotions, I'll admit. Special promotions are very successful when introducing a new product or breaking into a new market.

But the fact that special deals show only temporary results strengthens my point: multiple packaging is best used to increase over-all sales—and to hold these increases.

We recently made a series of tests on multiple packaging which help prove our theory that multi-packs increase sales without special aids.

The first one I'll mention is the Maine Sardine Test. We at Container Corporation made a series of tests with the Maine Sardine Council. The tests were conducted with Best Markets in Philadelphia, and were developed by the National Research Company, also from Philadelphia.

We used eight different packaging arrangements for the sardines. Each was either a loose can arrangement, a multiple packaging arrangement, or a combination of loose cans and multi-packs. We tested three-packs, four-packs, and six-packs alone. We also tested the multi-pack with loose cans and in combinations with other multi-packs.

Each variation lasted two weeks in each store. No publicity or advertising was used. There were no price cuts offered. Sardines are normally priced "three for."

When the results were in, we found that sales of multi-packs greatly increased the sales of sardines. For instance, the three-pack without loose cans on the shelf did the best and

Factors That Affect Response to Multiple Packaging

By William L. Dempsey,
Container Corporation
of America

Multiple unit packaging, the practice of banding together cans or bottles of a product and selling it as a unit, goes back historically to the first soft drink carrier.

Since then, this marketing tool has grown from a mere convenience of carrying for the shopper to a force in moving merchandise.

Naturally, this may or may not mean anything to you—depending on the answer to one question, "Will it work for my product?"

To that question, the answer is, "Yes." It's also, "No" and "Maybe."

For every canner or packer, the answer must be weighed individually.

And you can do that better than I can. I intend to help by telling you some of the rules of the road. I'll cite past case histories to show what tests have proved with other products.

But most importantly, I'm going to encourage you—I hope—with this one dominant theme: Multiple packaging has come of age.

Multiple packaging no longer needs help from price cutting or special promotions. As of now, multiple packaging pays its own way—and then some. Multiple packaging will increase sales through its own power and without a push from any other effort on your part. If you walk away from here today with that one idea, I will consider the day a success.

Why is multiple packaging's permanent role important to you? Because a permanent merchandising tool fits hundreds of situations that a limited promotional tool will not fit. And that means that multiple packaging

may pay off for you this year, but would not have worked for you two years ago, when it was not used properly.

Further, the amazing multi-pack can solve a variety of problems today. In the past, it was used for only one.

So the advantages are clear.

(1) Multiple packaging will sell products today that it would not sell in the past.

(2) Multiple packaging will do many marketing jobs today. It did only one in the past.

Let's go back to the past for a moment, and see where multiple packaging started.

WILLIAM DEMPSEY



showed a sales gain of 34 percent. This was a 34 percent increase over loose cans with no multi-packs, both priced three for 29.

We also learned that the closer we came to the normal multiple pricing structure—three for 29 cents is an example—the less need there was for loose cans on the shelf with the banded product.

For instance, for the three-pack and loose combination, the ratio of three packs to loose cans sold was 70:30.

With the six-pack and loose combination, however, the picture changed. The ratio of six-pack to loose was 58:42.

In addition to sales gains, we also made a few other marketing conclusions from the sardine test:

(1) We found that income level is a factor in sardine multi-pack buying. Whether the shopper buys a three-pack or a six-pack, for instance, depends on the income level.

(2) Three-packs sell best in low-income neighborhoods.

(3) And the three-pack, six-pack combination does best in stores serving higher income people.

Evidently low income shoppers shrink from tying up too much money in one item at one time.

As a result of the sardine test, a distributor could tell how much of a product to send to each of his shopping areas. So it had a practical value in that regard, too.

We recently concluded another series of tests with the National Canners Association, this time on a variety of products. These tests were similar to the Maine Sardine tests in that they offered no price break. The tests were conducted in Acme stores. This experiment was designed to determine the effects of multi-pack billboard—without special deals, displays or advertising—on the sale of canned or glassed foods. Once again, the multi-packs were pitted against single cans.

In the tests, three different sizes of multi-packs were used. They varied from two to 12-can units depending on the commodity. The multi-packs and loose can shelf arrangements were rotated throughout eight supermarkets up to 16 weeks. These tests covered applesauce, soup, evaporated milk, tuna fish, cranberry sauce, and corn.

As a result of these tests we believe we can make certain conclusions:

(1) Again, that multiple packaging can increase sales without special deals, display and advertising.

(2) An individual brand's share of a particular market is the most important regulator in determining how much multiple packaging will increase sales.

For instance, largest gain due to multi-packs came from secondary brands, despite the fact that the first brand was sometimes as much as 12 cents cheaper. Usually this gain was not at the expense of the leading brand. The leader generally gained at the same time, although not as much.

The same is true on the other end of the ladder. If the product is not consumed at one sitting, such as mustard or mayonnaise, there's little chance of greatly increasing its sales with a multi-pack. The important thing to determine is which commodities are consumed fast.

Another thing to learn before you multi-pack a product is the best size carton to use for the particular product. In our tests, number of units in each multi-pack situation varied between brands and type of container.

Correct size can only be determined—as Chris FitzGerald, Editor of *Packaging Parade*, explained in a recent article—by taking into account these factors: rate of turnover, attainable shelf space, product weight and size, and your brand's share of the market.

(3) Another thing we learned from the test is that retail price differences between brands do not influence sales results—unless prices go against established psychological pricing barriers.

In multicartons, private store labels react the same way as nationally advertised brands do.

(4) And finally, we're sure that sales increases caused by multi-packs demonstrate the effectiveness of the billboard as an effective point-of-purchase advertising piece.

Look down a supermarket aisle of convex cans and jar surfaces. See how the break-front effect of the multi-pack interrupts this visual monotony. When a store manager puts a multiple package on the shelf, he's putting up a billboard.

I believe the results of these tests are important to all canners. You must learn that brands and products do not react to multiple packaging in the same way. The important thing to know is that your sales will increase if multiple packaging is used intelligently.

We have talked about the merchandising side of multiple packaging. There is also a distribution story here. If distribution were merely a matter of plucking the can or jar from the end of the assembly line, then it would be simple enough.

But distribution, as we all know, is far more complicated. Between the filled can or jar and its eventual consumption at home, are a series of transport, storage and handling steps, followed by re-transport, re-storage, and re-handling steps. Each step takes time. Each unit of time is a unit of cost to the manufacturer, wholesaler, warehouse, and retailer.

I believe Val Bauman, Vice President of National Tea Company, made an estimate on multi-packs' time-saving recently. He said each loose can or jar is handled a minimum of six times from warehouse to consumer. This makes it obvious, he concluded, that every multi-pack offers a supermarket huge savings in handling costs. Each two-pack, for instance, saves six handlings and the savings go up as the sizes get larger.

Len Kanter in his *Food Topics* survey interviewed 327 women who had just purchased a multiple packaged item at no savings over single cans. Of this sample, 81 percent were under the impression that they'd bought the multi-pack at a saving.

This leads me to this summary: we know we can increase sales with multiple packaging by cutting price, by not cutting price, and through special promotions.

A next logical question: can we increase sales with multi-packs by increasing the price? This should be one of the next factors tested.

What are the factors that affect responses to multiple packaging? In short, there are eight principles a canner should study before he goes into multiple packaging:

(1) The consumption rate of your product.

(2) The consumer's right to make a choice in number and flavors.

(3) The psychology of multiple pricing—why people buy.

(4) The diminishing long-range effect of price promotions.

(5) Your share of a particular market.

(6) The income level of your customers.

(7) The increasing need to stop the busy shopper's eye.

(8) The real need to reduce handling costs throughout your distribution system.

Those are the principles. And my final suggestion is this:

Keep alert to progress and new ideas being made in the multiple packaging field. Consult with retailers to find out their thinking. And read as much as you can on the subject—as new ideas are presented. All this keeping in contact will serve you well next time you're considering a multi-pack for one of your products.

Results of the Food Topics Multi-pack Study

By Len Kanter,
Former Editor,
Food Topics

I believe in multi-unit packages. I believe in multi-packs because after two years of deep interest in the sealing techniques fostered by a multi-unit pack, I witnessed proof positive that consumers like this method of buying. In eight supermarkets, in two cities, Detroit and Rockland, Mass., I saw 262,035 units sold, of which 119,411 cans and jars were sold loose, while the multi-unit availability in a similar period moved 142,624 cans and jars. All of this was during the multi-pack test, conducted jointly by the Mead-Atlanta Paper Company and *Food Topics*.

In setting up our *Food Topics*-Mead Atlanta test, every road block to sales was set up for the multi-pack. No special concessions, and one week, following another with no special inducement for six weeks, made the multi-pack sell itself.

Now, before I relate a few things about the test, I firmly believe that a lot of the conversation concerning costs of packaging should be reconsidered. And, I throw out for your consideration that there is money in a company's advertising program for the multi-packages. There is no reason why funds previously earmarked for advertising, promotional and public relations cannot be turned over to the multi-pack, which in my opinion does more advertising, and to replace some of the wasted materials now being used, especially at point-of-sale which finds itself in the store's trash cans in many, many instances.

In the Mead-Atlanta-*Food Topics* test, a number of basic principles and procedures were devised for the testing program, which are important:

(1) Categories to be researched were 8½ oz. peas, #303 green peas, 12-ounce corn, #303 fruit cocktail, vegetable soup, tomato soup, applesauce in jars, and baby foods in the varieties of strained applesauce, peaches and carrots.

(2) Individual items to be tested were to be nationally distributed brands, with actual choice of individual manufacturer left completely in the hands of the chain management in each of the two cities covered, Tedeschi Super Markets, Rockland, Mass., and Chatham Super Markets, Detroit, Mich.

(3) All multi-packaging of products was to be accomplished at local store or warehouse level.

(4) Prices on the multi-packaging were to be existing, regular shelf prices at time of testing, with no reduction because of the multiple packaging.

(5) Regular and existing shelf space was to be used with no extension whatsoever of space, which might be necessitated because of the multi-unit package itself.

The actual testing period began during the week of June 23, 1958, with the second testing period beginning the week of September 16. Two different testing periods were decided upon in order that there be a complete analysis made of fluctuations due to a seasonal variation as well as to cover a holiday period, that of July 4.

Tedeschi's operating in the New England area with five supermarkets, provided an operation which could be statistically analyzed for increased traffic due to variations in types of consumers because of the entire area being a summer vacation land.

The three Chatham supers were chosen for being in a highly industrial city, faced with intense urban competition and operating in a middle income area.

Actual designs for all packages were created under the direction of Henry Ogden, executive vice president, and Robert Gerson, merchandising director, of Mead-Atlanta Paper Co. *Food Topics* personnel in combination with management people and store operational personnel of the two chains did all the work at store level. In Chatham, two boys did all the packaging by hand at store level, and two boys did all the work at their warehouse. In both cities, it was found that part-timers could keep up with the packaging activities. Making it as difficult as possible, we utilized complete packaging under so-called

LEN KANTER



loose conditions for three weeks, and then immediately following for three weeks, and multi-packages were utilized.

In that all the pricing, both loose and multi-packaged, was exactly the same, the entire result of the increased sales, as registered during the two testing periods, could be attributed to the multi-package itself.

During the test the consumer, with no added incentive offered to her except the convenience and display emphasis of the multi-pack, showed a definite preference for the pack, since she could not be influenced by price.

During the Mead-Atlanta-*Food Topics* study, a survey was taken of 487 women outside the store, who had made purchases. Sixty-seven percent disclosed having a multiple package in their shopping carts. Of this 67 percent, 84 percent registered a definite desire and appreciation for multiple packaging. Ninety-three percent of the 67 percent who disclosed that they had purchased the product in a multi-package, did not remember the price they had paid for it. Eighty-one percent of this group thought they had purchased the product at a saving, and 43 percent made definite statements that they had purchased the multi-unit carton with thoughts of immediate use and for storage in the pantry.

In one supermarket the lack of influence of the actual price paid was clearly pointed up. While one of the chains had been selling baby food 11 for \$1, a change in pricing of the multi-package at three for 30 cents actually increased the number of items sold in that department in a particular testing period.

One of the major contributions achieved by the *Food Topics*-Mead-Atlanta multi-unit testing program was a savings in labor in the two chains. This saving was noticed in pricing, stocking, and in checking out. In the use of special displays at end-of-gondola location or in the front of the store, the two methods used by the chains, great economies were immediately noticed. In building a display, 15 cases of a product in the loose version took one man 12 minutes. The same man was able to take the same 15 cases in multi-units and build a display in under 4 minutes.

As to pricing, the supermarket personnel were able to price 48 cans of soup in one minute. In pricing eight multi-unit packages (six per) the clerk was able to do this in 13 seconds. At checkout the time effected in savings was especially good for baby food, and the 8½-ounce variety of peas which were tested.

Percentagewise, the total of individual cans and jars to the total of over-all sales was 45.6 percent loose and 54.4 percent with multi-packs available. It is important to note that 11.9 percent of total products

sold during the tests was moved the first week of both testing periods as loose cans and jars. Three weeks later, following intensive merchandising of single units, utilizing all elements of advertising and display the multi-unit registered 11.1 percent in its first week on the shelf without any extra attractions, such as special displays or advertising. This was a drop of only eight-tenths of a percentage point below the norm registered three weeks earlier.

It is significant that even though consumers had been buying products and had been stimulated to buy through advertising and display earlier, no stimulus followed that earlier week to spur the multi-pack buying, yet the multi-unit was able to hold sales at an extremely close-to-normal selling rate.

Checking back two weeks after conclusion of the tests, we found sales dropped off .3 percent from the norm established in the first week without any extra stimulus such as advertising and display. This indicated quite conclusively that the multi-unit pack, through the testing program in the two cities, was responsible for increased consumption rather than an upgrading of purchases through advertising and special display, which has been the pattern of selling, for the most part, in our supermarket industry.

Of the 45.5 percent of the product sold in loose cans and jars, and 54.4 percent with multi-pack availability, it is important to note that 25 percent of all products sold during the test was purchased in the combined final week of the two test periods, when multi-pack were advertised and displayed.

It was found that 23.4 percent more product was sold in the combined week with multi-packs available, versus the comparable period of single units only. This figure reflects the total excluding baby foods, which were not given special displays at either chain.

But, you may be wondering, what was the actual gain registered by the multi-pack? Applesauce in 15 ounce jars registered the largest sales gain, with an over-all increase of 73.7 percent followed by vegetable soup with a 48 percent gain; #303 cans of green peas went up 28.7 percent; fruit cocktail 26.4 percent; tomato soup 12.4 percent and 12-oz. corn 4.7 percent. Note should be made that while vegetable soup showed a larger gain, more tomato soup was sold than any other product, 26 percent of the total to be exact. An abundant supply of fresh corn on the market in test areas hurt canned sales.

Two items did not register the sales gains of other products tested, a three pack of buffet size peas, and baby foods. Peas in 8½-oz. cans, designed for smaller families, were passed up by housewives in favor of the multi-

pack #303. The only product where single shelf prices were not adjusted to multi-packs was baby foods, and here the normal pricing structure of the product resulted in a drop of multi-packs. At Chatham Super Markets in Detroit, for example, single jars of baby foods were priced at 11 for \$1.00. Consumers rejected the three-pack of a single variety in preference to purchasing one or two jars of many varieties, adding up to 11 to gain the \$1 price advantage.

Perhaps the most impressive measurement of the influence of multi-packaging is in comparing displays of single units versus multi-packs. We all know that special displays increase sales over normal shelf positions, and they did—an over-all 79.5 percent—but when multi-packs were displayed, sales shot up a 137.4 percent over normal shelf locations. That's a whopping 57.9 percent points higher.

Let me mention a breakdown on the best moving items: peas up 38 percent points; corn up 15.5 percent; fruit cocktail up 24.4 percent; vegetable soup up 117.2 percent; tomato soup up 44.6 percent, and applesauce in multi-packs up 176 percent points over single-can displays.

It is remarkable to analyze the entire test made by Food Topics and Mead-Atlanta in terms of the pressures week after week by the individual chains to move product. During the six-week test, for the first three weeks, the jars and cans were sold loose. Right on top of a week, where the items were advertised and received an added floor display, the multi-units were placed on the shelves.

In placing the multi-packs on the shelves in the same position, no effort was made to introduce to the public the almost "new product" in the form of the multi-pack. Everyone knows that it is not possible just to put a product on the shelf and expect it to move out on its own accord. After but one week on the shelves, the full impact of the "billboard" displays were evident. In the weeks of its being advertised with an added floor display, the multi-packs made all-time sales records in comparison to previous gains when selling the product loose.

Based on the results of this Food Topics-Mead-Atlanta survey, there are five basic uses for multi-packs.

(1) On items that are packaged in units which classify as single service containers, or on items that have a high rate of usage, multi-unit packaging can be effectively used on a day-to-day basis, with or without a tie-in deal.

(2) Multi-unit packaging can be effectively used with price deals, and a wide variety of promotions such as special events, seasonal promotions, coupons, premiums, and a host of others.

(3) For introduction of new products creating more attention with a multi-pack of the new item, or by marketing the new item with an established seller.

(4) For special promotions on a store, wholesaler or chain-wide basis, for product lines by national manufacturers or controlled labels, house labels or private labels.

(5) Finally, for basic agricultural commodities such as those tested in our survey, we recommend that multi-unit packages be used on a special even basis, two, three or four times a year. In this way, a multi-pack can be effectively used with or without a price deal, particularly when the pack is tied into a special event of some type, such as a "round-up," "harvest sale," or seasonal promotion. The big "plus" benefit of multi-packs in the point-of-purchase impact of the carton on the shelf or in special display cannot be overlooked.

Our survey indicated ever so strongly the increased visibility and product billboard offered by the multi-pack, which turns the product into a built-in shelf-talker. I am sure that if we were able to see our supers as others do, and see the vast boring maze of more than 6,000 items blending together because of similar shapes and colors and labels, blaring out the same things, the squaring the circle of cans and jars with the billboard carton is a definite advantage.

And, I almost forgot to mention the everyday scene, in every super USA. Just when the store traffic is at its peak, there's always the customer who didn't notice that something was two for, or three for, and so she goes back to get the additional unit, or holds up the line until it's brought to her. Lost time, lost motion, lost sales, every time that cash register stops ringing.

Results Obtained by A Canner Who Has Used Multiple Packaging

**By Edwin C. Kraus,
Big Stone Canning Company**

I would like to dispel any notion that I am an expert in the field of multiple packaging, for I am not and never have been, but I will be happy

to relate to you the experiences that we have had in this field.

I believe that our company was the first to try multiple packaging in canned vegetables. We first experimented with it back in 1949, when you will recall, I am sure, there was somewhat of a surplus of canned corn.

The package that we used and developed was a complete shipping unit in itself. Naturally, because it was experimental and it was designed by us, no automatic machinery was available either to load it or seal it. As a result, all of it had to be done by hand. Complications rapidly developed. Among other things, the package wouldn't track on the standard conveying system nor could pallets be used as the package was too small to bind to prevent tipping.

The labor problem that it presented to the warehouse was tremendous as it completely snuffed any labor saving device that man had then or even now devised. Because only two of the packages could be handled at a time in loading a car or truck, it naturally slowed down this operation considerably. Thus, with one stroke of genius, the sales department put production back to the hand age. I understand that there were some very caustic comments about the intelligence of that particular department, and the production department was even known at times to cast serious doubt about sales' rightful heritage in the animal kingdom.

From a sales standpoint, however, the package was not all on the debit side. In spite of the fact that there was a surplus of corn, we were able to command a premium of 5 cents a dozen, which helped to defray the additional cost that this package occasioned and which amounted to approximately 12 cents a dozen, not including labor. The package did have sales appeal and substantially increased our sales and got us new business. At first, we thought that we had stumbled on a natural because the package went like a house afire. In every instance, when it was first tried, both stores and wholesalers ran out of stock. Naturally, everyone thought that we had a ball of fire on our hands. The store manager and supplier would frantically ask for a repeat order to be shipped at once.

It was these repeat orders that got us into difficulty. For we found the package on a repeat would just not move and that finally the stock boys were obliged to break open the package and sell the contents in singles and doubles from the shelf in order to sell the merchandise. After some experimenting, we found the answer to the problem. It was very simple. There are only so many people who will buy a six-pack of corn. When you have saturated this market, the movement naturally slows down and won't pick up until this group re-enters the market. From this experience, it was a natural step to deduce that the six-pack in vegetables was to be used only for promotions and should not, even if the additional expense could be justified, be used as a steady sales program. I cannot stress too strongly that its usefulness is strictly on a promotional basis and that if used



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without shelf stock, will even slow up movement.

Because of the design of this original package, it being an entire unit in itself, we found that it had one other objection from a sales standpoint: buyers were prone to think of the six-pack as a unit, the same as they thought of a 24 unit case, so when they ordered a carload of corn (this is back in the good old days when you sold in carload quantities), you found it was well to leave the buyer's office as fast as possible. Experience taught that invariably the buyer would seem to go into a trance and then would break forth with something that sounded like, "Man, that's 6,000 cases".

Naturally, the introduction of this six-pack occasioned many suggestions on how to improve the idea. The most frequent one was that it should be re-cased in the ordinary shipping carton. But because of the original cost of the six-pack, we thought that this additional cost would be prohibitive. Another suggestion was that handles should be placed on the package and, while we thought that it was a good idea, we were at a loss to understand just how it could be done as any type of handle would interfere with stacking. There was also the additional fact that it would cost considerably more money to have handles attached, and, we, of course, were interested in lowering our cost.

We finally decided upon something that seems to be basic in today's management circles. That is, never do anything yourself that you can get someone else to do for you for nothing. Starting with this premise, we introduced the toter bag.

It had the merit of being cheaper, as the bag itself with color printing

cost less than 2 cents apiece. Of course, there was no labor involved at all in filling it as we left this entirely to the store manager. We have been pleased with the results obtained with the toter bag and have run some very successful promotions using this bag. As I have pointed out, while on a unit basis the cost was cheaper per bag, we also realized that there was more waste in its use.

The merchant today is not a bit different from anyone else; and if he can get something for nothing, he's going to take advantage of that fact, especially if by getting some extra bags, it means that he won't have to buy so many himself. I cannot tell you just how many of our bags have been used in the produce department to package such items as potatoes, carrots and apples, or for that matter, our competitors' products. Just the other day, I was in a supermarket in which I found our toter bags being used not only for Butter Kernel, but for Libby and Del Monte as well, besides having a considerable number filled with oranges and apples. I will say this for the store manager, he was at least using some of them for canned foods.

This brings us to another problem that the toter bag presents: that there are entirely too many store managers who won't take the time or effort to see that the bags are stacked and filled during a promotion. In this regard we have had better luck with corporate stores than with the voluntary stores. The complaint is, of course, that it takes too much time, notwithstanding the fact that we can show sales increases as high as 1,000 percent.

Among other objections that we have made to the toter bag was that it afforded opportunities for pilferage through substitution. On the plus side, although it did involve more labor for the store manager, and while it did not stack either as easily or neatly as the six-pack, it did move a lot of merchandise. Perhaps the fact that it did not stack neatly was a point in its favor, for we all know that a woman hesitates to disturb too neat a stack of merchandise. This fact, plus the additional fact that it had a handle, we personally thought were factors in its favor, for we in sales thought that the handle was a silent invitation to the buyer to pick up the merchandise.

The other package we have used we call our "budget pack." It combines many of the features of both the original six-pack and the toter bag, together with some improvements. For example, with the "budget pack," the merchandise is shipped in its regular carton and when it is stacked, it shows the vignettes of the can. The manufacturers infer at least that it can be machine-loaded. I am sorry to relate that we do not entirely agree with this claim. It has the additional

merit that, when a buyer does purchase a quantity of six-pack, you have reasonable assurance that it is at least going to be used to display the merchandise to its advantage; as a matter of fact, you will get a display, for it is necessary to stack and display this package in order to merchandise it. You are also very certain that it will not be purloined by the produce department or used to sell your competitors' merchandise.

Our chief complaint is that it is quite costly, chiefly because, at least in our experience, the machines sold to load this carton will not do the job as represented. Our chief criticism, in fact, of this type of multiple packaging is that the companies that are selling and advocating this type of packaging know so very little about the merchandising of vegetables, and their approach seems to be that it is the same as the merchandising of soft drinks or beer. Consequently, they approach the whole problem with the idea that you should install some very expensive machinery that will enable you to package your entire pack in such containers. This may be very fine when applied to a beer manufacturer and perhaps a concern like Budweiser could afford to make the installation, but certainly it not only is uneconomical for a vegetable canner, but it actually would be a deterrent to sales. I will admit that a half-hearted attempt has been made to design a smaller machine, but the results, in our experience, have been far from satisfactory. So by the time that you figure your case and labor, you have well in excess of 20 cents a case involved, basis 24/303's.

I might also mention that we have had suggestions, and have even tried it, to pack assorted vegetables in a six-pack. This has not been too successful, simply because of the varying tastes in households. It's like the old story of "Peas-Porridge-Hot" in which some like it hot and some like it cold and some, of course, don't like it at all. The same thing is true of mixing peas, corn, string beans, etc.

In the selection of the multiple that you are to use, no definite formula can be decided upon in advance, for it certainly and definitely depends upon the product that is going to be sold. If I were to formulate a rule, I would say that you should always use the highest possible multiple that can be merchandised. In some instances, it might be only two. In other instances, it might be 8, 10 or 12. All of us agree, I am sure, you can sell more cans of beer, for example, in a multiple package, than french-fried grasshoppers.

In closing, here are a few points that you should remember:

(1) Only certain items should be used in multiple packaging. Those are the items that will sell in multiple units. I am sure that you can sell six

cans of peas and corn, but I doubt very much if you would be able to sell six cans of, say, canned rattlesnakes.

(2) Consideration should be given to the weight of the package. Again, the housewife can handle six cans of corn where she could not handle six grand pianos.

(3) The multiple package should be attractive and offer an inducement price over the single can.

(4) You should use it only for promotions and insist that it be displayed and specialized.

(5) The shelves should always be stocked or you will find that you may even lower your sales.

(6) It should be treated as a promotion and repeated only at intervals of two or three months in order to obtain maximum results.

(7) The package should contain the highest multiple that can be successfully merchandised. Why sell three when you can sell six as easily? Never forget the higher the multiple,

the lower your cost and the cheaper per unit the store can sell.

(8) Pricing is important and, like everything else, you can price yourself off the market by having too high a unit price. If possible, try to stay under the magic figure of \$1.00.

(9) Dispel from your mind any thought that you can get, at least at present, the buyer to pay a little extra for this type of packaging, for he won't. We were able to do it once, but in this day and age of competition, you must charge it off to advertising.

We, in Butter Kernel, are convinced that multiple packaging has helped sales, but, of course, it is not the only answer. It is something like the story that is told about the atheist who was sitting next to the Catholic Priest at a prize fight. When one of the fighters crossed himself, he turned to the Priest and said, "Well, Father, do you think that is going to help him any?" To which the Priest replied, "It will, if he can fight."

Results Obtained by A Canner Who Has Used Multiple Packaging

By James E. Glover,
Coastal Foods Division of
Consolidated Foods Corp.

We are told that product packaging, multi-pack merchandising and programmed selling promise to play leading rolls in marketing between now and 1960. The sales powers of these dynamic strategies, we are told, are based among other things on appealing benefits, services and conveniences to customers. We are here this morning to discuss the second of these factors—multiple packaging.

Many manufacturers in a variety of lines report highly successful sales of products multi-packed to combine two, three, six or more containers in a handy carry carton. According to Robert M. Gamble, Jr., Washington advertising executive, every product consumed in volume is a candidate for this method of selling. The National Canners Association has been and is still engaged in a study of this type of merchandising, The Philadelphia Project, Report No. 6, that you have just received. I would call your attention to the statement of our Executive Secretary, Carlos Campbell, which appears in the foreword of this report:

"In the past multiple packaging has resulted in impressive supermarket sales gains for such products as beer and soft drinks. Exponents of multiple packing have attributed these successes to what they claim to be inherent merchandising advantages. It has been claimed, for example, that

multiple packaging has great value as point of sales advertising; that it increases product visibility; and that it automatically increases the unit of sale, as well as total sales. In the foreword of Report No. 2 we raised the question of whether or not these advantages hold true for canned foods. Perhaps after studying the results of both reports the question should be changed to 'When do the advantages of multiple packaging hold true for canned foods—for which products—under what conditions—using what multi-pack form?' The problem of adapting multiple packaging to the merchandising of canned foods is a complicated one."

I think our Secretary has very ably stated the situation and that we as cannery want to do a lot more studying and experimenting before we attempt multiple packaging of canned foods. My own personal feeling and experience would advise against it.

I say this for two basic reasons: first, because of today's consumer and, second, because of the extra expense involved.

No doubt, some of you are wondering what I mean when I say because of today's type of consumer. Let me tell you, the young American homemaker today is the most discriminating and the most alert buyer the world has ever known. She is discriminating in her choice of products because her one desire is to buy the type of products that her family, her husband and her youngsters like and will enjoy, and which will in some measure con-

tribute to her happy home. She expects and knows how to analyze the value of a product. She plans her meals so that her family will get a varied and well-balanced diet. She is willing to pay for a product at what she considers to be a fair and reasonable price. She is not concerned with whether you and I make a profit or whether we don't. She is not concerned with the technological or the sales problems of the canner. Her primary interest is her family and in giving that family the food products that will make them happy. The fact that she is able to remove three or four cans from the shelf or display at one time is destroyed when she breaks her fingernails trying to remove the cans from the sleeve when she gets home.

This brings us directly to the second factor, the increased cost of multiple packaging for the packer of canned foods. No study has shown that the increase in sales of multi-packed canned foods is continuous. Our experience is that it was temporary and that after the initial spurt there was a slight decline and then sales leveled off to a normal pattern. In fact, after a six-month period there was little interest in multi-pack items.

Do you as a packer of canned foods have a sufficient margin of profit to justify the increased cost of multiple packaging? Certainly, it seems to me that with today's high costs and trimmed down profit margins the cost of multiple packing is enough to rule out any use of multiple packaging.

You have the increased cost of the carrying carton, the rental of the packing machines to pack the cartons and the purchase of a different size case in which to pack the cartons, besides the increased labor cost of the multiple packaging. Ours ran from 18 to 22 cents per case. We don't have that kind of a profit.

Those of us that are engaged in the canning of fresh vegetables know that our selling price to a large degree is determined by the law of supply and demand. Take such items as corn, peas, tomatoes and green beans. Regardless of your cost of production, you are forced to sell at what is the going market for these items, or else hold them hoping that the market will improve. This cannot be done indefinitely. Can you afford to add increased costs to items of this nature?

Multiple packaging is not a panacea for slow sales that we may adopt and have all our sales problems solved. It calls for a definitely planned sales program which will require study and research. First, if you decide upon what product you are going to multi-pack, it must be a fast-moving product. Chain store buyers are practically unanimous in refusing to handle any multi-packed product that is not a fast mover. You must next determine the size of the container.

Will you use a two, three, four or six-pack carton? There you are faced with the question of customers' buying habits. Are they accustomed to buying two cans at a time or three? Can they be trained to buy instead four or six? Will they change their buying habits without a price concession? Can you afford a price concession? All the studies that have been made have been made without price changes; however, unless it is advantageous for the consumer there is little reason for the habit change. The size and weight of the carton are also important factors. Thus, the can sizes to use in multiple packaging are limited, as well as the number of cans to the pack. You are further limited by the price of the multi-pack. According to those that have been

studying this idea, multi-pack items must be in combinations that will sell for less than a dollar.

The cooperation of dealers must be obtained. Without their cooperation little can be accomplished, for shelf space is of utmost importance. Sufficient shelf space is essential; otherwise the point of sale value of the multi-pack cartons is lost. To get this support, advertising either of a cooperative nature or general must be used. The entire program thus becomes increasingly expensive.

It is, no doubt, excellent to introduce a new product when you are making special concessions in order to get it established on the market. As a general practice it appears to me to be impractical for canned food packers.

Multiple Packaging of Canned Foods from the Retailer's Viewpoint

By Val S. Bauman,
Vice President,
National Tea Co.

I sincerely appreciate the privilege of serving on your "Multiple Packaging Panel," because "packaging," be it multiple or otherwise, is today one of the most important single factors in our business, and most certainly yours! This may seem like an exaggeration, but let's reflect for a while. The most effective personal salesmen we have in our stores today are the packages themselves, the silent salesmen of the shelves.

In this almost completely self-service supermarket distribution system of 1959, we do have personable young men and women, but their reason for being in our stores, unlike yesterday, is not to extol the virtues of your products, but to confine their time primarily to making the customer feel at home, explain and exploit our many services and help them find departments—not necessarily products, because once the customer finds the department she is looking for, she makes her choice, unmolested and without personal influence of what she buys, because of the effectiveness of the beautifully wrapped package, the attractively designed bottle, or the informatively labeled can. Of course, it helps if she has been presold, but even then she usually needs the added impact of a familiar package to remind her, especially when personal direction or salesmanship is not available or volunteered.

Here is an example of how packages sell people, be they single packages or multiple packages; an authentic quotation we received from a shopper the other day:

"Congratulations to the bottle designer. I wandered around a strange supermarket tonight, looking for nothing in particular, while my wife accomplished wifey things.

"Thinking ahead to the pleasure of 'Have Gun, Will Travel' on TV this evening, I took some interest in the pretzels, cheese pretzels, celery pretzels, sugar pretzels and even plain pretzels. But I digress. The bottle, ah, there it was, perched on top of a display on the other side of the shelves. I saw only the bottle, from the back, without accoutrements, advertising, promotional gadgets or the like. I couldn't even see the label. There it was, gleaming like a Grecian urn, all by its lonesome.

"So I reached over the pretzels, cheese, celery and sugar kinds, and grabbed it. I didn't care what was in it, I had to have that bottle. Now that I reflect on it a bit, such bottles could be dangerous. Imagine millions of American men buying this stuff just because of the bottle shape. Since it doesn't have Ye Olde Mae West shape, the reasons for its attractiveness can't be the usual Freudian gook. It looks big, modern, and somehow or other, professional . . . crisp, clean, and sort of, well, 'engineered' is a good word for it.

"Only after grasping the bottle did I discover that it held barbecue sauce. Well, that was all right too. I like barbecue sauce, but I bought the bottle. Perhaps I have a secret desire to be a chemist, and the similarity of the bottle to an Ehrenmeyer flask had its effect. Perhaps I'd had an insight of future use of the bottle to put a single red, red rose in. Perhaps some other 'hidden persuader' was at work; I don't know, but I bought the bottle!"

"Only after we arrived home did I discover the darned thing was essentially free. Since I had to send in the label to get the 39 cents back anyway, I thought I'd let you know one man's opinion of the bottle. Oh, yes, we tried the sauce. It's very good, but Man (or Mam), that bottle. Sincerely, Robert L. Wall."

Unfortunately, or should I say fortunately, not all of our customers are as erudite nor as impulsive as Mr. Wall, or we might be asking our canners to package peas in perfume flasks. But seriously, this letter, stripped of its humor and warmth, proves just one thing, it's the packaging that sells!

Gentlemen, this is the age of distribution. It is also the age of self-service. The customer sees, selects and serves herself. All of us who work in the supermarket industry, from the youngest boy in the stockroom on up, know that if the package can't sell itself, it just can't sell.

And just as important, the method of packaging of virtually any given commodity can predetermine to a great extent the consumption of that commodity in yet another way. It can influence the quantities of the commodity purchased at each retail sales transaction!

Your own "Multiple Packaging Tests with Canned Foods" Report No. 6 by the National Canners Association shows that in a multiple packing test on canned applesauce, the four-pack, plus singles, increased sales by 20 percent. On canned cranberries, the three-pack, plus singles, increased sales by 27 percent. On canned corn, the six-pack plus singles increased sales by 31 percent. And on canned tomato soup, the four-pack plus singles gave you a sales increase of 20 percent. I can give you other examples.

As recently as 10 years ago, the real majority of all packaged gum was sold in five-stick packages for a nickel. Today, most gum is sold in six-packs of five sticks each. One manufacturer has announced a 10-package box of gum, and many large supermarkets are offering for sale the full-size 20-package box of gum. The same thing applies to candy. And the classic example is, of course, cigarettes, the largest single dollar item in supermarkets today. And, any cigarette buyer will tell you the women in supermarkets are buying by the carton, or the five-pack. Only about 10 percent of our total cigarette volume is the single package.

I can go on and on—beverages, detergents, potato chips, kitchen cleaners—there is hardly any one single category of food item in the supermarket today, which does not lend itself to increased sales and consumption, when sold in multiple packs.

Yes, the retailer likes multiple packaging, because multiple packag-

ing increases our volume and reduces our handling! It increases home consumption. It goes without saying that the more cans, or bottles, or packages, or any given item found in the pantry, the more that item will be used, be it tea or toothpaste. We, the retailers, sincerely believe that there should be no road blocks acting as a deterrent to sell more to the housewife every time she shops.

But multiple packaging does more than that, it cuts our cost of doing business!

As I said before, this is the distribution age, and because distribution is of such dominant importance to our entire economy, anything that can be done to cut the cost of distribution is naturally going to result in a strengthening economy with the resultant benefits to the consumer in the form of more real products delivered per dollar spent.

Consider this for just a minute. This year at National Tea Co., total volume will measure well over \$800 million. We're expecting it to go as high as \$875 million. But, for simplicity in mathematics, we will use the \$800 million figure. The average sale per customer per visit to the store is between \$4 and \$5 nationally. For round figures we will use \$4. That means we can reasonably say that the 950 National Food Stores this year will handle some 200 million transactions, amounting to \$4 each. A review of our tonnage figures as compared to our dollar figures shows that the average consumer gets about 4 pounds of real product per dollar spent in a supermarket. Therefore, the average retail transaction of \$4 gives her 16 pounds of merchandise per transaction; or evaluated in one pound of canned foods, or one pound of anything, dog food, candy or coffee, a pound is still the most popular measure of purchase, when it comes to food products, so we can reasonably assume that the customer is getting 16 to 20 packages in cans, bottles or cartons for each of her \$4 transactions.

Going back to our 200 million transactions, and figuring roughly 20 items per transaction, we find that in order to handle our business this year, we will deliver 4 billion packages of merchandise. That is a lot of packages. And, if we had to handle those packages only once, it wouldn't be so bad, but they are handled once from the trucks, cars and boats to our warehouse, once within the warehouse in filling orders, again to load on to our trucks, again to unload at our stores, again to place on the shelves, and again to ring in the cash register. In other words, every one of these 4 billion items have to be handled a minimum of six times, either individually or in multiple units, or in full cases, but individually handled, lifted and placed on sale, displayed and promoted.

If every item were packed in units of two, just two, it would cut this 4 billion down to 2 billion. Think of the economy of operation. Think of the saving in distribution costs. And, I have been talking only about National Tea Co., the fifth largest chain in the nation. Think of all the other thousands of supermarkets with their billions of transactions, and you will be able to visualize what multiple packaging can do toward helping the food distribution industry cut overhead costs.

One thing that has puzzled me is why so many packers have hesitated to adopt multiple packaging. The consumer likes it. The retailer is demanding it, and every test shows that it does increase your business.

The one reason most frequently heard for this hesitation is, "our margin of profit is not sufficient to cover the cost of multiple packaging." If this means you think you can't afford it, I say to you that I sincerely believe that the packer cannot afford *not* to consider multiple packaging seriously.

We all know that when retailers' modern methods and consumers' convenience demand a change in packaging approach, alert manufacturers will satisfy this demand; and, when they do, the less alert will follow. Then, when it becomes an accepted marketing method, the true economic cost of the product is adjusted either up or down, dependent upon whether the costs exist at all, or whether the increased sales offset the increased packaging costs.

It is expected in the supermarket industry that within the next few years, multiple packaging will become just as much a part of manufacturing as caps, labels, cans and bottles!

Since we quite firmly believe that multiple packaging is as inevitable as death and taxes, the only question in your minds is "when"? The way you answer this will determine whether you are going to be a leader in your field, one who plans his merchandising strategy and achieves the profit a leader gets, or whether you will lag behind, and then have to adopt multiple packaging as a merchandising tactic to offset the heavy inroads your competing packer is making on your share of the market.

While I have you in my power, a captive audience almost, there is one other phase of packaging which I think you should also consider, and that is "wholesale packaging." I do think more attention should be given to easy-opening shipping containers, containers with tear strips, or some other convenient means of handling packages in the supermarkets.

Canned foods, for example, packed in flat containers with 24 on one layer instead of 12 on two layers, giving us the opportunity of price stamping

24 cans as soon as the carton is opened. Such single layer shipping containers also give us the opportunity of tearing the strip, or cutting the carton so that a tray remains on which to handle the merchandise from the truck to the shelf, or in the case of fast moving items, the tray of merchandise can be slid on to the shelves without handling a single can.

I have with me a few cartons, which I quite earnestly recommend for your consideration. These shipping cases fill our requirements and give us the information needed for quick, accurate accounting in handling from our trucks, in our warehouse, and through our stores.

In the upper left-hand corner we have the quantity and size. In the upper right-hand corner we have your code or article number. In the lower left-hand corner we have the packing date, or coded date. In the lower right-hand corner we have the gross weight of the shipping case and its contents. And predominately in the middle on all four sides we have your brand name and the commodity. Across the bottom, on all four sides, your selling message.

The count and size is basic. Your article or code number is helpful for abbreviated invoicing. The date packed helps us with rotation in our warehouses and stores, and the gross weight helps us predetermine the weight of our orders for building up truckloads within the state load limits without having to weigh each truckload of merchandise. The gross weight also helps us tabulate tonnage for sales analysis purposes in comparison with dollar volume. Your brand name and your commodity on all four sides of a container are a must, of course. You will note that these containers have a tear strip about about $1\frac{1}{2}$ " to 2" from the bottom so that after removing the strip, we wind up with a tray which makes for easier store stocking. This $1\frac{1}{2}$ " to 2" lip which is left is an ideal place to put your sales message. This is the kind of carton we like; other food retailers have other ideas, and I heartily recommend you also talk with them too.

From a promotional standpoint, the shipping container which can be built into a selling unit, such as a tray, permits us to build a 50-case display for promotional purposes in about the time it would take to remove one

case of merchandise and stock it can by can on the same display. This is real economy in distribution. This also breaks down resistance to building special displays and it results in more promotional effort being given your product at the retail level.

Another economy in distribution that is still in its infancy as far as accomplishment is concerned is the palletizing of shipments. All of the products in our warehouse are palletized. But I am sorry to say that many of our suppliers have not yet seen fit to palletize their merchandise. This means that we have to unload it from the cars to our trucks on to our own pallets. Much can be done toward distributing exchangeable pallets for quick unloading of cars and trucks, and eliminating the individual handling of individual containers. In fact, if I were a manufacturer, I would seriously consider offering one free pallet with every 25 or 40 or 50-case order, whatever quantity would logically be placed on a single pallet. This would encourage customers, your wholesale customers, to order the pallet unit, thereby predetermining again the quantity of purchase. Only in this case, it's multiple packaging at the wholesale level of distribution, as well as at the retail level of distribution.

We don't really mean to be demanding or critical of any of our friends in the canning industry, but when we were asked to speak to you on your panel, we were specifically requested to give you our ideas of what the retailer would like from you, the canner, in the way of multiple packaging. This, I have attempted to do.

We like multiple packaging, easy opening cartons, tear strip containers, palletized shipments. It makes our job easier, and our distribution less costly.

We like a lot of things, but we like best the packages that are designed to sell, and sell fast, in quantity. And multiple packaging has proven itself to do just that. The testing time is over. Now is the time for practical application, wherever practical. You, the canners, have always done your level best to give us what will work best for us, the retailer, and for you, the canner—plus what pleases the customer most. We know we can always count on your continuing efforts in this direction.

Dr. W. V. Cruess Receives Forty-Niners Service Award

Dr. William V. Cruess, well-known California food technologist, was presented the sixth annual Forty-Niners Service Award in special ceremonies February 20.

The Award recognizes his over-all contribution to the canning and allied industries through his special studies in food technology.

Frank S. Langenkamp, president of The Forty-Niners, presided at the presentation ceremonies. Tributes to Dr. Cruess were made by two of Dr. Cruess' associates, Dr. Emil Mrak and Sherman J. Leonard.

The Service Award presentation was held in conjunction with special ceremonies in observance of The Forty-Niners' 10th anniversary. The group was organized to assist the Canning Machinery and Supplies Association and other canning industry groups.

At the anniversary ceremonies special tributes to The Forty-Niners were given by N.C.A. President Edward E. Burns, N.F.B.A. President Watson Rogers, and C.M.&S.A. President John C. Swift, in acknowledgment of the services performed by The Forty-Niners during the past 10 years.

Mr. Burns' tribute applauded The Forty-Niners for their assistance to the N.C.A. at its annual conventions and for their sponsorship of the Service Award ceremonies, which, he said, "accentuate the fact that canned foods are scientifically based and that they make a solid contribution to the public welfare through their safety, their variety, their health and nutritive values."

Previous recipients of The Forty-Niners Service award have been Dr. Samuel Cate Prescott, Massachusetts Institute of Technology (1954); Dr. John Charles Walker, plant pathologist, University of Wisconsin (1955); Dr. Louis Gardner MacDowell, director of research department, Florida Citrus Commission (1956); Carlos Campbell, Executive Secretary of the N.C.A. (1957); and Dr. C. Olin Ball, food technologist of Rutgers University (1958).

THE MARKET POTENTIAL FOR CANNED FOODS

PRESIDING: EDWARD E. BURNS, Alton Canning Company, Inc., Alton, N. Y.,
1958 President of N.C.A.

ADDRESS: "The Food Market Can Expand Sixty Percent in the Next Ten
Years"—ARNO JOHNSON, Vice President, J. Walter Thompson Company,
New York City

ADDRESS: "Teens—The Super Market for Sales"—MRS. ENID HAUPT, Editor
and Publisher, *Seventeen*, New York City

The Food Market Can Expand Sixty Percent in the Next Ten Years

By Arno Johnson,
Vice President,
J. Walter Thompson Company

There are changes and pressures in our economy that point to opportunities for a rapid surge upward in our standard of living over the next ten years. These changes can expand substantially the market for the food products of quality and convenience that represent an upgrading of the American diet.

Our increased population will be characterized by a rapidly changing composition in terms of education, income, discretionary spending power, age distribution, family structure, and place of living. These probable changes may influence substantially the diets, food requirements, and purchasing habits of our civilian population.

We accumulated, during the recent recession, a backlog of \$80 billion of consumer buying which now awaits activation by advertising and aggressive selling efforts. This alone could make possible as much as a 10 percent increase in total consumer purchases over the \$288 billion level of mid-1958 to a \$318 billion level by the end of 1959 and a 15 percent increase to \$330 billion in 1960. And, in ten years, the total food potential should expand by 60 percent from the present level of above \$72 billion to \$115 billion possible by 1969. Quality processed foods should enjoy an increased share in this opportunity.

These probable changes in our productivity, purchasing power, population, and way of life point to increased sales opportunities for those in the processed foods industry who are aggressive, imaginative, and creative in their marketing, merchandising and advertising, and who can adjust to, and take advantage of, the trends and changes in consumer desires and in distribution.

THE CONSUMER FOOD POTENTIAL

Food sales to consumers should expand by over 60 percent within the next ten years from the 1958 level of about \$72 billion to over \$115 billion by 1969, in order to keep up with

the potential expansion in our standard of living during this next decade. This potential market for food would exist if food products continued their postwar trend in share of total personal consumption expenditures.

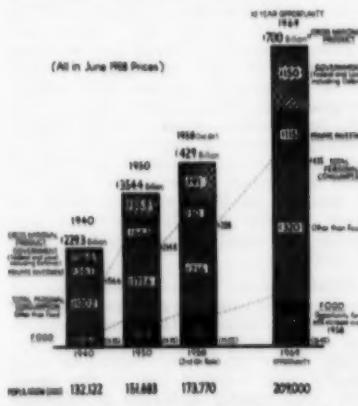
In terms of constant dollars (at June, 1958, prices) food expenditures have increased since prewar as a share of total personal consumption expenditures. At the low point of the depression, in 1933, food represented 23.5 percent of the standard of living as measured by total personal consumption expenditures. In the immediate prewar years, 1939 and 1940, food represented 23.3 percent. By postwar 1950 the food share had increased to 24.3 percent and in 1958 it was 25.0 percent. So, with improved packaging and processing, with improved and more convenient food products, and with a continued upgrading of the diet to better quality and more protective foods, the share consumers are willing to devote to food products could increase further.

STANDARD OF LIVING

In another ten years, by 1969, our total production of goods and services in the United States should grow to

FOOD PRODUCTS

OPPORTUNITY FOR 60% GREATER MARKET BY 1969



over \$700 billion in terms of 1958 prices compared with \$429 billion in mid-1958.

A total of \$700 billion by 1969 is a conservative measure of our total productive ability, since it allows for an increase of only 1.7 percent per year in population plus a gain of 2.0 percent per year in per capita productivity—well below the rate we have demonstrated since prewar. Actually, in the 17 years between 1940 and 1957, total physical production per capita (in terms of constant dollars) increased by 52 percent or about 2½ percent per year. In fact, the Rockefeller Brothers Fund report of April, 1958, set as a desirable goal for 1967 a total production of \$707 billion, with personal consumption at \$431 billion in 1957 prices. So \$700 billion for 1969 (two years later and in 1958 prices) should be looked upon as a minimum level for long-range planning.

To support the \$700 billion production economy, which we can and must have by 1969 to avoid general unemployment and under-utilization of our productive ability, we must add to our level of sales to consumers the huge amount of about \$147 billion (a 51 percent increase up to a total personal consumption of \$435 billion by 1969 compared with the \$288 billion level in mid-1958). That's the equivalent of adding our entire prewar 1939 total consumption on top of our present high standard of living. In other words, we must accomplish in the next ten years as much improvement in our total living standards as we accomplished in the previous 200 years from colonial times to 1939!

That means rapid changes in markets and in the purchasing habits and consumption desires of people. It means that total food requirements which, in terms of today's dollars, doubled from \$36.4 billion in 1940 to \$72 billion in 1958, can grow to over \$115 billion by 1969, an increase of 60 percent!

Is the food industry prepared for this velocity, this rapid change in concepts and habits of living?

Population increase alone will not be sufficient to account for the higher food potential. The population increase up to 209 million by 1969, from the 1958 level of about 174 million, can contribute an increase of about 20

percent to the food market. The remaining two-thirds of the 60 percent potential increase by 1969 must come through changes in food habits—upgrading the diet and increasing the quality, the convenience and range of selection of foods.

The resumption of an upward trend in our total standard of living started in the second quarter of 1958. There is opportunity for continued improvement because, during the recession, we have built up a backlog of about \$30 billion of consumer buying ready to be activated into current consumption.

BACKLOG OF CONSUMER BUYING

Few seem to realize that we have accumulated this backlog of \$30 billion of consumer buying, a growth in our standard of living which should have taken place in the last two-and-a-half years, but which did not take place because of purposeful measures to slow down our rate of expansion as a means of fighting inflation.

This \$30 billion backlog of added consumption potential now represents an opportunity for as much as a 10 percent increase in sales of total consumer goods and services over the 1958 level of \$288 billion to a \$318 billion level by the end of 1959. And for 1960 to match our productive ability would require \$330 billion in consumer purchases, or 15 percent over 1958 midyear levels. This is not a prediction or forecast, but an analysis of opportunity based on the basic soundness of our economy.

Providing new artificial barriers such as purposefully tighter money are not imposed to dampen the needed recovery of consumption growth, the \$30 billion backlog of consumer need and demand could make possible a rapid advance in living standards in 1959-60 and a lessening of the inflation pressures that accompany any slowing of demand and lowering of productivity. Unfortunately there seems now to be some revival of the old discredited theory that demand and purchasing power must be curtailed to avoid inflation.

We experienced a serious slowdown in consumption growth in 1958 which actually started as far back as the second half of 1955. The accumulated deficit in growth from 1956 to 1958 totaled \$30 billion. To keep up with our productive ability we should have increased our consumption on the average by \$6.0 billion each half-year since 1955.

When all figures on total personal consumption, or our total standard of living, are converted to constant dollars at June, 1958, prices, it becomes obvious that our rate of growth in 1956, 1957, and 1958 was less than was needed to match production by about \$30 billion. Throughout 1954 and 1955 our growth in real consumption averaged approximately \$8½ billion each six months, with our growth

rate reaching a peak by adding \$12.5 billion in the first half of 1956.

From early 1955 monetary measures designed to slow down our expansion became increasingly stringent. In the first half of 1956 our growth dropped to \$2.7 billion. By the second half of 1957 we had slowed down to stagnation with a gain of only \$0.7 billion. Throughout 1957 the gain was less than the rate of increase in population, so on a per capita basis, our standard of living as measured by purchases of consumers in 1957 actually showed a decline. The first half of 1958 showed a further decline.

The turn for the better, however, actually took place in November, 1957, when the positive relaxation of the monetary measures retarding expansion occurred. Considering the probable lag of 8 to 12 months in the influence of this change on the ultimate consumer, this action, starting in November, 1957, became a favorable stimulus for resumption of growth in our living standards in the second half of 1958.

We now have the potential and need for rapid changes in living habits and consumption as we approach the \$700 billion economy within the next ten years. Those in the food industry should prepare for these probable changes.

DISCRETIONARY SPENDING POWER

An important factor in changing and expanding our food requirements is the rapid growth in discretionary spending power of our population resulting from our increased productivity per capita.

Discretionary spending power grew 63 percent between 1950 and 1958. It could grow another 90 percent to an impressive total of about \$267 billion by 1969 if we reach our minimum production opportunity of \$700 billion and succeed in keeping consumer prices reasonably near the present range with an index not over 125.

Discretionary spending power is defined here as the surplus spending power over and above what would be required to supply the same per capita standard of living for the basic necessities of food, clothing, and shelter as equivalent to the 1950 actual standard of living after taking into account present prices. The discretionary spending power just since 1950 has increased from 42 percent of total disposable income after taxes to 46 percent in 1958 and, by 1969, its share of the greatly increased disposable personal income could grow to 57 percent!

That means that families moving up to better income groups could, if they desire, take on the greater physical consumption of food or could upgrade their diets in character and quality and convenience to the level that was found prewar in similar higher income groups.

THE INCOME LADDER

The rapidity with which mass millions of Americans are climbing the income ladder through increased productivity is illustrated by analyzing consumer spending units by income after taxes in 1950 as contrasted with 1956 and the estimated distribution of families in 1960.

The number of consumer spending units with disposable incomes of \$7,500 is expected to increase from 2.1 million to 6.6 million by 1960; and it is expected that the group from \$5,000 to \$7,500 will increase fourfold, 4.8 million to 16.2 million; and the net total above \$4,000 is expected to be about 36 million in 1960 compared with about 12 million in 1950 and 26 million in 1956. That means three times as many families as in 1950 with incomes above the level of \$4,000 where discretion in buying can increase rapidly and where upgrading of diets can expand the food potential rapidly.

Even with the recent trend in the share of the consumer dollar given to food, the total food market ten years from now could be 60 percent greater than now. But an analysis of the food consumption habits of families in different income groups will show that the opportunities for expansion of the total food market could exceed 60 percent. The spread between food expenditures per family in the present average income family and food expenditures in the better levels of income is considerably greater than 60 percent.

As evidence of what an expanding standard of living could mean to the future market for foods, I have analyzed various U.S. government studies of actual per capita consumption, or consumption per family, at different income levels. These have been projected to show potential increases in demand if people moving up in income were educated through promotion and advertising to take on the desires and consumption habits of the income groups into which they move.

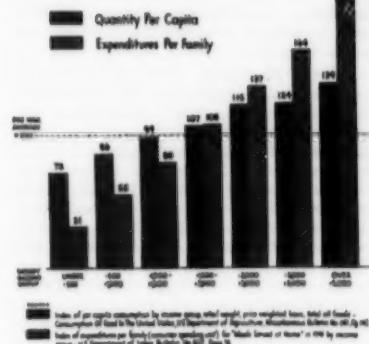
CONSUMPTION EXPANDS WITH INCOME

A basic factor in expansion in the market for food is the fact that, according to these government studies, it was shown that per capita consumption of food, prewar, increased with each increase in the family income. The average family, prewar, had an income of under \$25 per week. It fell in the \$1,000 to \$1,500 income class.

In relation to food consumption in the average family the government study showed two things: first, the actual physical consumption in quantity of food per capita increased with income and, second, that expenditures for food increased much more rapidly with income increases than physical consumption because of the upgrading of the diet. The family living on

OPPORTUNITY FOR INCREASED FOOD SALES WITH ADVANCE IN STANDARD OF LIVING

Index of Prewar Food Consumption And Expenditures By Income Groups



\$500 or less a year consumed 28 percent less quantity of food per person than the average, while persons living in families with incomes of \$5,000 and over consumed 39 percent more food than the average person.

Even more startling was the difference in dollar expenditures for food in different income groups. Those with incomes of \$500 spent only 31 percent as much as the average, while those with incomes of \$5,000 or over spent 2½ times as much as the average. This more rapid increase in food expenditures with higher income reflected the better diets and the greater use of "protective" foods, such as meat, dairy foods, fruits and vegetables, and selection of foods of better quality or greater "built-in" convenience. In other words, not only did physical consumption of food increase with income, but the selection of foods of greater value increased even more rapidly.

While this study of quantity consumption was made prewar, there is recent supporting evidence of this opportunity for upgrading the diet as income improves. A study was made of total food expenditures per family in terms of dollars in 1956. Results of this study were summarized in the U.S. Department of Agriculture bulletin, *The National Food Situation*, July 27, 1956.

Taking the average food expenditures per family in the \$2,000 to \$3,000 income group, in 1956, as an index of 100, the expenditures for food per family ranged upward to a level 2½ higher in families with incomes of over \$10,000, 168 percent greater.

At all levels from \$5,000 up, expenditures for food were considerably above the average, from 1½ to 2½ times as much as in the \$2,000-\$3,000 group. This was in 1956. There were only 6.4 million families then with

incomes above \$5,000, after taxes, but by 1956 the number had more than doubled to a total of 14.6 million; and it is expected that a year from now, 1960, there will be 22.8 million, or over three times as many families as in 1950 with incomes above \$5,000 after taxes. By December, 1958, average weekly earnings in manufacturing, for example, had grown to \$88.04 or nearly four times the \$22.86 level of 1939.

This alone indicates the potential expansion of the market for food, because if the families moving above \$5,000 were to take on even the 1950 likes and habits of similar families, they would be spending from two-thirds more to over double as much again to meet these new dietary concepts. And, in a few years, there may be over three times as many families able to afford the better standards of food consumption actually existing in families with similar incomes in 1950. At a minimum, this means that there can be a market for food products 60 percent greater in ten years.

THE "HABIT LAG"

Consumption habits and desires do not change automatically with changes in income. There is a "habit lag." This is natural because food habits, likes and motives are the result of past experiences built around a lifetime of training and a concept of a standard of living quite different from what now is possible.

Evidence of this lag in accepting new food habits as people move up in income is found in comparing the index of food expenditures by income groups in 1950 and an index of food expenditures by income groups in 1955. Data have recently been made available by the Department of Agriculture on the 1955 Household Food Consumption Survey.

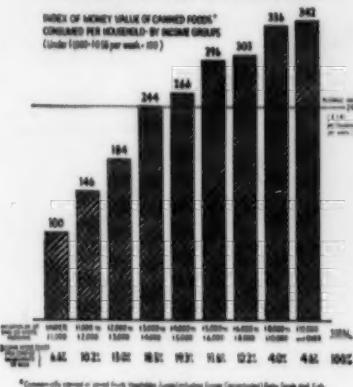
In comparing the 1955 consumption data with those for 1950, it is found that the millions moving upward in incomes did not at once, or by 1955, take in the food expenditure habits of those who were in the similar higher income groups in 1950. This "habit lag" left substantial areas of undeveloped potential food consumption in each of the 1955 income groups. It would have taken about 30 percent greater food purchases by those with incomes over \$5,000 in 1955 to match the food habits of similar families in 1950.

CANNED FOODS IN HIGH INCOME FAMILIES

The home consumption of canned foods is particularly sensitive to family income levels. This was shown by the USDA Household Food Consumption Survey of 1955.

This study showed that the money value of canned foods consumed per household, in 1955, stepped up with each increase in family income. Fam-

HOW HOME CONSUMPTION OF CANNED FOODS EXPANDS WITH INCOME (1955)



*Commodity content in pound fresh vegetables. Source: Calculated from 1955 Household Food Consumption Survey, Bureau of the Census, U.S. Dept. of Commerce, Vol. 1, Pt. 1, 1956.

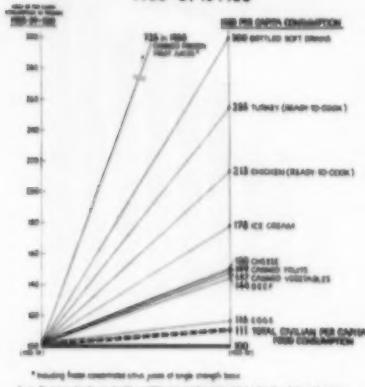
lies with over \$10,000 annual income after taxes spent, on the average, 3.4 times as much for canned foods as those with incomes under \$1,000. They purchased 41 percent more per household than the average of all families. Families in each of the income groups above \$4,000 were better than average in canned foods. Since 1955 there has been a rapid movement of families into income areas above \$5,000 where canned foods consumption, in the 1955 study, was high. If these families moving up in income were to take on the canned foods likes and habits similar families had in 1955, there could be substantial increases in canned foods consumption even now. And, over the next ten years, as we approach the \$700 billion economy, there will be further mass movements of families into income groups above \$5,000. This is a factor that could greatly expand the market for home consumption of canned foods, and could create greater emphasis on quality and convenience.

PER CAPITA CONSUMPTION

If the total food market has an opportunity to expand by 60 percent within the next ten years to keep up with the growth of our economy, then the opportunity for expansion of consumption of canned foods should be even greater. This is indicated both by the greater potential popularity of canned foods as families move up in income and by the history of more rapid growth of canned food consumption compared with the total of all foods since prewar.

Between the prewar average of 1935-39 and 1958, total civilian per capita food consumption increased by 11 percent. This is a measure of physical consumption per capita. In the same period physical consumption of canned vegetables, in pounds per capita, increased 47 percent, canned fruits 49 percent, and canned fro-

**CHANGE IN PER CAPITA CONSUMPTION
SINCE PRE WAR
FOODS GROWING FAST IN POPULARITY
1935-39 to 1958**



zen fruit juices 625 percent. Canned foods, therefore, showed a far greater increase in per capita consumption over prewar levels than the total food market.

Changed income can be an important factor in stimulating changes in diets and food habits over the next ten years but there are additional population and social factors to take into account. One of these is the rapid change in the education level of our population.

CHANGE IN EDUCATION LEVEL

By July, 1959, the number of adults (over 20) with a high school education will be over five times as great as in 1930 and 110 percent greater even than in 1940. This adult population, containing nearly 49 million high school graduates, contrasts with a population of 23 million graduates in 1940 or a population of about 4½ million graduates shortly after World War I, in 1920.

This means that, today, we have quite a different population in terms of education than we had prewar and that this change can have a significant influence on living and reading habits. It can offer favorable opportunities for expansion of canned foods in home food consumption.

An indication of this influence of education in growth of communication is a comparison of what has happened in the seven years, 1950 to 1957, in terms of education and circulation of magazines and Sunday gravure sections. In that seven-year period there was a growth of 8 percent in our total population 14 years and over. As compared with this growth of 8 percent, the number of high school graduates in our population, 14 years of age and over, increased 27 percent or 3½ times as rapidly as population; and the college graduate total increased 32 percent or four times as fast as the population.

While the circulation of daily papers kept pace with the population growth (of those 14 years old and over), the circulation of Sunday gravure sections increased more nearly in line with education, that is 24 percent; and circulation of magazines had a similar increase, approximately 23 percent. It is significant that this rapid growth in circulation of magazines and Sunday gravure sections took place even during the mushrooming growth of another form of communication, television ownership and viewing in American homes.

EDUCATION EXPANDS FAMILY INCOME

The recent Census Bureau analysis of family income in 1956 related to the education of the head of the family indicated that education is an important factor in America's increased productive ability, since, by and large, income received must bear some relationship to one's contribution in total production. On the average the family income in 1956 stepped up with each step up in level of education.

Families headed by those with four years of high school enjoyed incomes 83 percent higher than families headed by a person with less than eight years of elementary school. And families whose head received five or more years of college training had incomes averaging 50 percent above the high school graduate.

With the very rapid movement of our population into education levels of high school graduates and above, we should anticipate even more rapid increases in productive ability and in the ability to upgrade our standard of living to provide rapidly expanding markets.

TREND TO HOME AND FAMILY LIFE

There is a trend toward increased home and family life in America that points to pressures for substantial improvement in living standards.

This trend to family life is reflected in the rapid increase in number of families; in a higher percentage of the population being married; in marriages at an earlier age; in an extraordinary increase in the number of children under 10 in our population resulting in more children per family, and a higher percentage of families having children; in a rapid increase in home ownership, and in expenditures for activities of home life; in the mushroom growth of family viewing of television in the home; in a movement of population to the suburbs; in the rapid growth of shopping centers and self-service distribution; and in a resurgence of religious worship and church membership as shown by the growth of 38 percent in church membership from 1947 to 1957 while population was increasing 19 percent. In the same period consumer expenditures for religious and welfare activities jumped 78 percent.

The change toward family living, even since 1947, is reflected in the trend of consumer expenditures. Those items having to do with family living have gone up since 1947 considerably more than average whereas expenditures for other types of items like spectacles or amusements have declined even though purchasing power is much higher.

In the ten-year period 1947-1957 consumer expenditures for household electricity, gas, and telephone increased over twice as fast as the total standard of living purchases. In contrast with a 72 percent increase in total consumer purchases of goods and services, the consumer expenditures for electricity increased 177 percent, for gas 172 percent, and for telephone 156 percent. So did expenditures for owner-occupied housing, user-operated transportation, travel, and private education increase rapidly. All this is a further manifestation of the trend to home and family life in America.

Leisure time available for home and travel and recreation activities had more than doubled in the last ten years. Total weeks of vacation of workers jumped from 34.4 million weeks in 1946 to 70.0 million weeks in 1956. It was estimated that 85 percent of vacations in 1956 were with pay.

POPULATION AND NEW FAMILY FORMATIONS WILL ADD TO THE FOOD MARKET

Along with a rapidly rising standard of living we have the added stimulus of a bulge in population growth and a likelihood of large increments in family formations in the next few years.

Our population has more than doubled since 1900, reaching nearly 177 million by midyear 1959, and the number of households has tripled to nearly 51 million.

Population continues to grow at the rate of over 2.9 million per year or 240,000 per month. That is the equivalent of adding a Providence, R. I., or an Omaha, Nebr., to our market each month.

The birth rate has continued at a level far above earlier predictions by population experts. Births of 4.3 million in 1957 were the largest on record and were 2.1 percent above 1956. In 1958 births held within 1 percent of the 1957 record. The "baby boom," since 1940, has been of such proportions that it will have a pronounced effect on new family formations from 1960 on.

TREND TO LARGER FAMILIES

By July, 1959, there will be 80 percent more children under 5 years of age in our population than in 1940, and 75 percent more in the 5 to 9 age group.

This huge increase in the number of children soon will cause public out-

cry against inadequate school facilities and shortage of teachers, as well as juvenile delinquency. It will affect housing requirements, food consumption, and many phases of family living. During the next five years, to 1964 and beyond, there will be a huge movement of children into the adolescent age groups where food consumption is high and where interest in many products starts.

For many years American families decreased in size. Now there are indications that this trend is reversing because of the greater number of children per family. A major factor in holding up the birth rate has been the change in attitude of young couples toward having more than one or two children.

There has been a large increase, for example, in the number of second, third, and fourth children. The number of mothers bearing a second child now is 105 percent greater than in 1940, the number of third born has increased by 125 percent, and the number of fourth born by 110 percent.

NEW HOMEMAKERS

The number of persons reaching 18 years of age will start to increase substantially in 1959. From 1960 on, the increase will assume major proportions. By 1965 the number reaching 18 years of age will be 65 percent over the 1951 level. If 18 is considered the start of the family formation period, we can soon expect increased pressures on housing and all the consumer market items associated with family life.

Taking the entire young group coming into the family formation stage, the five-year group of 17 to 21, there has been a growth of only 7 percent in numbers in the last six years, 1952 to 1958. But, by 1960, this group will be 17 percent larger than in 1952 and by 1965 it will be 46 percent larger. Eleven years from now, by 1970, the number of potential young homemakers, those in the 17 to 21 age group, will total nearly 18½ million compared with 11½ million in 1958.

The young teenage group, 13 to 16, will grow in numbers even more rapidly in the next five years. By 1964 this group will be 33 percent greater than in 1958.

Since these new young families will have been brought up in the era of swift growth of supermarkets, self-service and packaged products, their acceptance of new food habits may accelerate the changes in food requirements for our civilian economy during the next ten years. The upgrading of our standard of living could take on a new velocity.

The number of households in the United States grew by 15,453,000 or 44 percent in the 18 years between 1940 and 1958 (from 34,949,000 in April, 1940, to 50,402,000 in March, 1958).

It is estimated that the number of households will reach 57,517,000 by 1965 and 62,983,000 by 1970. From that point on, the growth may average 1,300,000 per year for some years beyond 1970.

MOBILITY OF THE POPULATION

The rapidity with which our markets can change is indicated by the mobility of our population. Most of us are aware of the regional shifts in population such as Florida growing 60 percent in eight years (1950-1958), and California growing 35 percent.

But even more important are the continuous shifts in local markets, even between neighborhoods in the same county. In five years 1951 to 1956, there were 159 million persons over the age of one year moving to a different home. That's the equivalent of our entire civilian population moving within a five-year period!

With a population shifting as rapidly as this, the importance of nationally advertised brands quickly identified by their packaging or symbols is obvious. The newcomers' ability to find the familiar and preferred brand at once in the new supermarket or shopping center outlet smooths the process of distribution.

Of particular significance is the breakdown of customers who move within a year by age groups. In the year March, 1955, to March, 1956, the number moving totaled 34 million or 21 percent of the civilian population over the age of one year. The greatest mobility was among young adults of 21-24 years; 48 percent of these moved place of residence within the year. All of the group from 18 to 34 were well above average in shifting.

The new homemakers, young married females, were far above average in changing place of residence. Forty-three percent of these housewives between 18 to 24 and 28 percent of the ones between 26 to 34 moved during the year.

POPULATION SHIFT TO THE SUBURBS

Between 1940 and 1958 population in the suburban portion of 162 metropolitan areas grew 77 percent while the central cities grew 27 percent and the rest of the United States, outside of the 162 metropolitan areas, increased only 13 percent.

The shift to suburban areas has been dramatic in the seven years 1950 to 1957. The civilian population of the United States grew by approximately 18 million persons. Eighty-five percent of this growth was in the metropolitan areas and their suburbs while only 15 percent was in the rest of the United States where, in 1950, about 44 percent of the population resided. Nearly 70 percent of the total growth in population, or nearly 12½ million, took place in the suburban parts of the metropolitan areas.



ARNO JOHNSON

As compared with a 12 percent increase in total civilian population in seven years, the areas outside the metropolitan markets grew only 5 percent, the central cities grew 6 percent, and the suburbs grew 36 percent. In the rest of the country outside of metropolitan areas, the urban or small town part grew by 7 percent while the rural population grew only 2 percent, making a 5 percent average growth outside of metropolitan areas.

Examples of this rapid suburban shift are the New York-Northeastern New Jersey metropolitan area and the Philadelphia metropolitan area.

In the six-year period 1950 to 1956 the central city portion of the New York area—New York City, Essex County, N. J. (Newark) and Hudson County, N. J. (Jersey City)—dropped 1 percent in population while the rest of the area grew 29 percent. The fastest-growing portion, Suffolk County, N. Y., jumped 82 percent in population in six years!

In the Philadelphia area the central city portion—Philadelphia County, Pa., and Camden County, N. J.—population grew 2 percent while the rest of the area grew 34 percent. The fastest-growing portion, Bucks County, Pa., jumped 97 percent in population in six years!

This rapid shift reflects changing living standards, changing shopping habits, and the increasing trend toward family living. The suburbs of metropolitan centers now are beginning to join into wide "interurbia" areas. This movement is accelerated by decentralization of industry.

Retail distribution in interurbia may become largely a series of shopping centers with fully stocked branch department stores, self-service drug stores and supermarkets which will

become almost community centers for housewives to meet friends, perhaps having lunch facilities and baby parking facilities.

With business and factories spreading out into interurbia, there may be a change in the structure of the working force. Many factories have found that, by moving out, they can tap new sources of labor supply from those who formerly worked in rural areas. The automobile makes it possible to draw the workers from a wide area. Already the part-time work of farmers in industrial or business jobs is adding greatly to farmers' income. Nearly a million persons, primarily engaged in agriculture, have secondary jobs.

The trend toward a shorter work week also is accelerating the tendency for people to hold more than one job such as a part-time evening job in addition to a regular daytime job. Nearly 4 million persons or 5½ percent of all persons employed hold more than one job during the average week. This number has more than doubled since 1950 when it stood at 1.8 million.

The movement of business and industry into a new area probably also will enlarge our labor force by encouraging an increased number of women to take jobs which they can reach conveniently by car. In particular, there may be an increase in employment of women in one-shift or part-time jobs. This will encourage still further the market for home appliances, convenience foods, and other packaged items as well as all those items that cut down on drudgery in the home.

Farm population dropped from 30.5 million or 23.1 percent of the total in 1940 to 25.1 million or 16.6 percent in 1950, and on April 1, 1958, at an estimated 20.8 million, the farm population was approximately 12.0 percent of the total population of 173.4 million.

This rapid drop in farm population and farm workers has not resulted in lowered farm production. On the contrary, total farm output (measured in physical units) increased by 47 percent between 1940 and 1958. Output per man hour increased by 117 percent between 1940 and 1958 because of rapid progress in farm mechanization, fertilizers, improved seeds, and in the increased yields of improved farming practices. The increase in farm output per man hour in the last six years alone, from 1952 to 1958, was greater than in the 30 prewar years from 1910 to 1940.

This amazing increase in farm productivity, along with a shift of much of the marginal production or low income farm population to industrial areas, has resulted in major shifts upward in the standard of living and purchasing power of the remaining farm families. Ninety-five percent

have electric service, for example, compared with 11 percent prewar.

Average value of machinery per farm increased eight times between 1940 and 1958 from \$394 to \$3,200. Farm equity per capita of farm population increased 5.6 times over 1940, from \$1,435 in 1940 to \$8,000 in 1958. This farm equity per capita, farm assets exceeding debt, grew by 60 percent between 1950 and 1958, from \$4,980 in 1950 to \$8,000 in 1958.

With this rapid growth of agricultural productivity and equipment for further expansion, it becomes increasingly important to recognize potential changes in the food habits of the non-agricultural population since markets for agricultural products could expand much more rapidly than population growth.

REVOLUTION IN GROCERY DISTRIBUTION

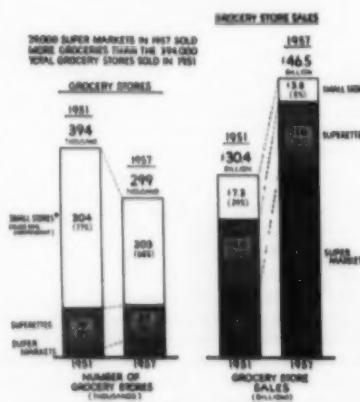
Along with the climb in incomes, the shift to the suburbs, and the growth of shopping centers since 1950, there has been a revolutionary rapid change in food distribution.

Some 29,000 supermarkets in 1957 with total sales of \$31.1 billion had a greater total volume of business than all the 394,000 grocery stores in existence in 1951, only six years earlier.

Representing only 10 percent of the stores, the supermarkets have 67 percent of the volume of sales. An additional group of 66,900 superettes, representing 22 percent of the stores, account for 25 percent of the volume so that two classes of stores that are almost entirely self-service—supermarkets and superettes—with only 32 percent of the stores handle 92 percent of the grocery volume.

Another rapid trend in grocery distribution has been for the independent stores to become affiliated with voluntary and cooperative groups. Regular chains of 11 or more units have held

REVOLUTION IN GROCERY STORE DISTRIBUTION IN 6 YEARS—1951-1957



Note: Average number of stores carried in 1957 is less than 1951. From 1950 to 1956 to 1957.

about the same share of total grocery store sales (36 percent in 1950 versus 38 percent in 1957) with independent stores' share dropping slightly from 64 percent to 62 percent. However, within the independent store volume the unaffiliated independents' share of total volume dropped from 31 percent in 1950 to 18 percent in 1957. Thus the bulk of the buying has been concentrated in fewer and much stronger hands. This along with the great growth of self-service is reemphasizing the importance of a strong consumer franchise—an acceptance and insistence on the brand by consumers.

ADVERTISING A MAJOR INFLUENCE

With the growth in productive ability and the need for expanded demand to utilize this productive ability, there has developed an increasing recognition of the educational value and sales stimulus of advertising. As people move up in income groups through increased productivity they do not automatically take on the same concepts of a standard of living as those who already are in these better income groups. There is a "habit lag" based on past training and experience. Advertising is a powerful force in overcoming or shortening this "habit lag."

In ten years, from 1940 to 1950, total advertising influence directed to consumers grew by \$3.6 billion from \$2.1 to \$5.7 billion (including both national and local advertising). The 1958 level was approximately \$10 billion and it is estimated that the 1959 level will reach \$11.2 billion. Thus, in nine years, from 1950 to 1959, another \$5.5 billion of advertising influence on the consumer will be added, an increase of 96 percent from the \$5.7 billion in 1950 to an estimated \$11.2 billion in 1959. That's nearly six times the prewar total.

In relation to the standard of living (total consumer expenditures for all goods and services), advertising influence increased from 2.9 in 1950 to 3.7 percent in 1957.

An important part of this increased advertising influence has been educational effort on the part of food manufacturers and processors to change peoples' habits and to expand the sales of new or improved food products.

While both industry and services have an opportunity for substantial growth in their markets, they face greatly increased competition. With the increased share of the consumers' income in the form of discretionary spending power, competition for the consumer's choice is broadened. It goes beyond just brand versus brand or competing services within a classification. It will include competition between whole product classes or with entirely different interests and services such as travel.

To sell the volume of goods and services necessary to support a \$700

billion level of production in 1969 could well require from \$17 billion to \$22 billion of total advertising, or nearly double the present! That would represent between 4 percent to 5 percent of the standard of living, measured by personal consumption of \$435 billion.

In its educational influence advertising expands total markets as well as speeds up the sales and turnover of recognized brands. This is a concept not generally recognized in academic circles, but it is important because the expansion of total markets and the upgrading of concepts of needs can influence our whole economy. Advertising has become an important stimulus to our expanding standard of living, and as a part of increased selling and educational effort it can play an important role in making possible our reaching the goal of a 50 percent increase in the total standard of living within the next ten years, and an increase of 60 percent in the dollar volume of food sales.

This need for increased advertising becomes more apparent with the rapid changes in the character of our population, with the changes in age structure, education, reading habits, TV and radio saturation, and mobility.

The individual producer should take into account this rapidity of change in the last eight years in the national market potentials, and in the costs of maintaining a competitive position in this growing market.

Compared with 1951, as a benchmark for the national advertiser, it will require a budget 2.2 times as large in 1959 just to maintain his position in the national market and to give his product or service the same relative advertising support per dollar of sales potential as he had in 1951.

This is after taking into account the increased cost of reaching a household with a message; the increase in the number of households to be reached; the increased number of messages, or physical pressure, of competitive advertising to offset in each household reached; and the increased potential value, or increased purchasing power, of each household reached.

To match just these changes in the national advertiser in 1959 would need a budget 121 percent greater than in 1951 and 34 percent greater than in 1955.

RAISING SIGHTS IN SELLING

The magnitude of the job to be done in changing consumer habits as well as the great opportunity for expanding sales in nearly every field of production and services suggests the need for raising our sights in the whole marketing area.

It becomes increasingly evident that the consumer and his standard of living is the key to any resumption of our own growth, and to our place in world affairs.

Our food business, for example, as measured by total personal consumption expenditures for food, could expand by over 60 percent to a level above \$115 billion within the next ten years, by 1969. That's in terms of June, 1958, prices.

That indicates a potential of adding over \$43 billion to our food market. The canning industry is in a good position to get an increased share of this larger potential.

Population growth alone should expand total food requirements by 20 percent. The rest of the 60 percent growth can develop through upgrading of diets in composition, quality and convenience as our population moves up in productivity and income; through the changed age distribution and place of living; and through a changed concept or pattern of family life with increased demand for convenience and variety.

This suggests the need for reorientation of objectives and reexamination of markets and selling and distribution methods, not in relation to the past, but in view of the new and changed opportunities.

It suggests reexamination of the sales organization and the advertising budgets to see if they are adequate for the job to be done and for the opportunity that exists. Formulas based on past relationships of selling and advertising to sales may no longer be realistic in view of the growth of competition, expansion in the number of primary prospects, and the need for education to change habits and ideas.

We need right now the courage and vision to expand selling efforts to hasten these changes in habits and to take advantage of the growing potential. The present high level of consumer discretionary purchasing power points to the opportunity for efficient increased sales efforts to pay off in profits, as well as to aid our whole economy in 1959-60.

To catch up with the \$700 billion level of production by 1969 will require an almost revolutionary change in living concepts and food habits of the mass of our population, a change that can take place only if we shorten the "habit lag" as mass millions move up in productivity and incomes.

Teens—The Super Market for Sales

**By Mrs. Enid Haupt,
Editor and Publisher,
Seventeen Magazine**

I've come to report to you on a revolution—an uprising that's going on all over the land, from Florida to Alaska, from California to Maine, changing the mores of the American home and effecting a great shift in our economic life.

The headquarters of this insurrection is the American kitchen; its weapons the cookbook, the can opener and the cupboard; and its heroines are our 8½ million teen-age girls. They have invaded the family kitchen and made the stove their stronghold.

Yes, American girls are all stirred up about food! Just think, when did you last hear a high school girl boast, "I don't know a thing about cooking"? In today's teen world, unfamiliarity with the kitchen breeds contempt.

What is responsible for this mixing-bowl mutiny? Like so many family goings-on, it all begins with mother. She needs her teen-age daughter's help more than ever before. Currently, one out of three mothers of teen-agers is in the nation's labor force. These part-time homemakers depend on the teen girl to help with the shopping, the cooking, the meal-planning, the list-making. They've made daughter their partner in running the home.

Second, girls are getting engaged and married at an earlier age than ever before. Seventeen is now the median age for engagement; 18 is the peak marrying year. Little wonder that the teen girl is preoccupied with practicing her homemaking skills!

Third, today's teens have rediscovered the proverbial way to a man's heart. It's no longer enough for a girl to look her best; she also needs to cook her best. And whether her favorite man is dad, brother or boyfriend, she loves to cook for him—a full course dinner, an after-movie snack, or a platter full of fudge. (And culinary skills are a social plus for winning applause from girl friends as well.)

Today's teen-age girls have also discovered the truth of the old axiom, "a short cut to individuality is through accomplishment." The easiest way I know for a girl to distinguish herself is by creating a culinary tour de force.

Fourth, cooking has become increasingly attractive. Modern methods, electric appliances, packaged mixes and new canned food products and food combinations all make strong and effective appeals to the girl under 20.

As a result, today's teen is a young woman with a "consuming" interest in food and every good product made. She's hungry for new ways to prove herself in the kitchen—new dishes, new menus, new recipes, new food

ideas, new cooking hints, and new food information. She's not set in her ways. She wants to be set on her way—right toward your canned foods. She's eager to try and she's eager to buy.

And can she really cook? Of course, she can! Whether she makes casseroles, cookies or cakes, hot dogs, hamburgers or steaks, soufflés, salads or spaghetti, sandwiches, pie or Brown Betty, she's a girl "at home on the range."

Unlike mother, the teen miss is free of preconceived notions and product prejudices. She feels gay—not guilty—about cooking the easy way—as long as the results are good. She's very much at home with canned foods. She's grown up depending on them for convenience, economy and quality. Through her homemaking classes, through magazines, newspapers, radio and television, through the far-reaching efforts of the National Canners Association, she's been educated to the intelligent and skillful use of canned food products.

Prepared soups, for instance, are the most frequent basis of the sauces and casserole dishes teens favor. Canned and frozen fruits are called for more often than fresh in their favorite recipes. And if grandma's heirloom recipe calls for a complicated meat filling, chances are these Twentieth Century teens will streamline the preparation by substituting corned beef hash or some other canned meat product.

They like to simplify cooking. At the same time they're show-offs at heart. (But what cook worthy of the name isn't?) They're proud of using up-to-date techniques. They love to be first with a new idea, a new recipe, or a new product. Seventy-five percent actually introduce new foods into their households.

Yes, they are a "canny" lot—these 8½ million young women under 20, and every week they go out into the local supermarket and account for 25 percent of the family's food budgeting. They annually spend \$3 billion on food. And they control and influence billions more.

Their future potential is even greater. By 1967 teen-age females will number 12½ million—a 50 percent increase in sales opportunity. At the same time there will be an 8 percent decrease of opportunity in what many of you, I am sure, consider your primary market. As the teen population expands by 50 percent, the market of young adults—those between the ages of 26 and 40—will be contracting by 8 percent. That loss of volume must be made up—and it can be more than made up by teens—your great new super market for sales.

But what are they like, these millions of money-spending young women under 20? In meeting teen-agers, observing them at school, at home, at work and at play, and talking to their



MRS. ENID HAUPT

parents, I've learned they are very active and busy girls. Busy, not only in the kitchen, but busy minding their younger sisters and brothers, earning money (\$4.2 billion a year) from allowances, baby-sitting and part-time jobs, redecorating their rooms, participating in 4-H, Girl Scouts, Hi-Y, church, social and civic groups, traveling, studying and taking part in active sports. They sew their own clothes, plan their own parties, stockpile their hope chest treasures, get engaged and prepare for marriage.

That is why today's teens are being referred to as "the grownup generation." They are a full five years older in attitude than teens of the previous generation. Whenever I talk with mothers, fathers, teachers and public officials, I tell them that teen-agers are America's greatest natural resource. I say this because I believe that this generation of teen-agers is the finest our country has ever produced—in bodily health, moral integrity, spiritual strength, and enterprising resourcefulness.

Certainly they follow the fads. They're up to the minute on the latest hit tunes. They "adore" the idol of the moment. But the teen girl's primary interests are her family, home, education, career, marriage and a family of her own.

Every year over half a million American girls undertake the full responsibilities of a home of their own while still in their teens. Half of all first brides are teen-agers, with more girls marrying at 18 than at any other age.

Even while still under her mother's roof, the teen likes to think of herself as the hostess with the mostest—and she probably is. She loves to entertain

—after school and before the game—Saturday night and Sunday brunch—a few friends—a big crowd—day in and day out. She makes her parties "of, by and for" the teen-ager. For she plans, shops for and prepares them herself. Research shows us that three out of five girls give large parties—an average of four or five a year—inviting 28 boys and girls and spending close to \$15 per party. They throw spontaneous parties for about 10 friends almost twice a month—24 times a year—and even their families don't know and don't care what these parties cost.

If the old adage about too many cooks is still true, today's mothers don't put much stock in it. They depend on their teen-age daughters to make an average of eight meals a week. They call upon them to suggest menus. They send them out shopping at least once a week. And seven out of 10 girls share brand decisions with mother, suggesting brands when the shopping list is made, switching brands if they can't find their regular label in the store, or selecting brands when they pad the family shopping list (as almost all of them do!).

Incidentally, it is interesting to note that these figures were obtained through a special surveying technique, whereby mothers independently answered the same questions about their daughters' food activities that the daughters did. The mothers' replies corroborate the girls' in every case. And independent research carried out by school systems in large cities has also verified these figures.

These are some of the reasons why forward-looking companies and groups in the food field are turning their sights on the under-20 market, tailoring advertising, promotional and educational campaigns to meet the needs of the young consumer. The National Canners Association, in particular, has been most alert to the changing patterns of the food market and the increasingly important role being played by the teen-age shopper.

It was *Seventeen's* privilege four years ago this very month to launch its first supermarket promotion for teen cooks in cooperation with the National Canners Association. The success of this promotion and succeeding ones we have created, strongly underscore the wisdom of an "accent on youth" policy for members of your industry.

I think it was Robert Louis Stevenson who said, "Youth is wholly experimental." There is no group to whom this wisdom better applies than the teen group. They are at the motive age—the time they form lifelong habits of thinking, doing and buying.

Our young people are impressionable—advertising impressionable, promotion impressionable, brand impressionable. Not only are they open-minded, they are enthusiastic as well.

Hand in hand with this enthusiasm goes a tremendous capacity for faithfulness and loyalty. A teen-age girl may follow the fads, but she also remains faithful to her first loves. Court her now and capture her heart. She'll keep company with your company.

Here is a brand new market—new to every brand. These girls don't have to be wooed away from brands because they're not already glued to brands. They haven't spent a lifetime learning to love your competitor. They want to be told and they want to be sold.

Whenever I think of how easy it is for business to win this great growing new market, I can't help remembering the queen's remark to Alice in *Through the Looking Glass*. She could have been describing the costly race among advertisers to win adult customers when she says, "Now here you see it takes all the running you can do to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that."

But it's easy to run after the teenage girl, because she'll chase you, till you catch her!

But never think for a moment that you can woo or win her with a mere "catch-as-catch-can" policy. More and more companies in every field are setting up specific programs to win this multi-billion dollar teen market.

Against this kind of competition, a hit or miss strategy falls far short of the mark.

That's why I would advise any food packer eager to realize his fullest potential to establish a 10-point program to win teen customers. I would advise him to:

(1) Work as a team with distributors and retailers from coast-to-coast, helping them with every possible merchandising technique, sales effort, point-of-purchase aid to move goods out of the store and into the hands of the teenage girl.

(2) Direct a certain percentage of advertisements, special promotions and displays specifically to the teenage girl, using copy and art that will (a) convey a feeling of youth, (b) show the teen-age customer as a person of importance, and (c) emphasize the role his product plays in the teen way of life.

(3) Set up a teen-age panel representing every region in the country and use these girls as barometers of teen-age interests and tastes. At the same time, they can help make his product familiar and accepted among their contemporaries.

(4) Create contests designed to win teen-age interest and discover teen preferences, such as product-naming competitions, recipe and menu contests.

(5) Develop new products specially for the under-20 market. New combinations of old foods, new snack ideas and gourmet foods all appeal to the young set.

(6) Reach the teen-ager in the classroom with special films, distinctive educational material and all the services he can offer. (*Seventeen-at-School*, our home economics supplement, will gladly help you create service programs of value.)

(7) Rely on research, knowing that his daughter's and neighbors' daughters' likes and dislikes are only part of a national average.

(8) Develop special product uses and recipes for teen-agers. One excellent approach is to get these from teen-agers themselves by working out home economics study projects with high school teachers.

(9) Keep his brand name constantly in front of the 12-to-20 customer.

(10) Remember the teen-age girl's influence on family purchasing. Today's teens are a family buy-word.

There once was a canner named Grable
Who said I don't sell as much as I'm able.
I'll give the teen girl
A promotional whirl.
And now he's a top selling label.

HOW TO INCREASE MARKETING EFFICIENCY

PRESIDING: NORMAN SORENSEN, Country Gardens, Inc., Milwaukee, Wis.,
1959 President of N.C.A.

ADDRESS: "A Slingshot for David"—GEORGE N. GRAF, General Manager,
Quality Bakers of America, New York City

ADDRESS: "Marketing Opportunities for Canners"—CURTIS C. ROGERS,
President, Consumer Panel Co., Market Research Corporation of America,
New York City

A Slingshot for David

By George N. Graf,
Quality Bakers of America
Cooperative, Inc.

In every phase of human endeavor throughout history, there is some man or some group who will select from the available range of the ingredients of philosophy and attitude, economics, management, manpower, geography and what not, and who will construct from them a success and progress record that is superior to all others.

This we call the "winning formula."

Some 2,185 years ago, Italy which was nestling securely behind its Alps was considered impregnable to attack. Yet, Hannibal the Great Carthaginian found a way to do the im-

possible. Hannibal carved a "way where there was no way." He built a "winning formula."

For centuries, the Romans had a "winning formula." It made conquests for them; spread their power and their greatness. But, of all who were a part of it, the formula was best developed by Julius Caesar, a gifted statesman and general, who better than any of their leaders had the touch and knew the importance of planning, organization, and direction.

In 1913, Knute Rockne, head football coach at Notre Dame, astounded the football world by upsetting the heavily favored Army team through use of the forward pass, and later revolutionized the sport by stressing offense, developing the backfield,

while perfecting line play. None of our generation will ever deny that Rockne had a "winning formula."

Be it politics, business, sports, or any form of endeavor, there is hardly a person in this room who upon reflection cannot think of at least a score of case histories of the "winning formula":

Henry Ford who first and best developed "service to the customer at lowest possible cost"; John Wanamaker who in an era of "The Public be Damned" instituted his philosophy of "The Customer is always right"; Thomas J. Watson, who carrying his banner, "Think," so saturated the company with his personality and his force that he and the corporation became one; John D. Rockefeller whose adage, "We will never deceive ourselves."

All these are but just a few of a thousand of illustrations familiar to all of us—of men and leaders who had "winning formulas."

Within every industry—yours and mine—there is a wide range of success patterns, all the way from top achievement to miserable failure which is in direct ratio to the efficacy of the formulas used.

The present inflated state of the stock market illustrates this. Compare a few figures of 1952 with September, 1958—when I computed these figures—six years later. In the field of drugs, American Home Products rose from 19 to 107. In that period its dividends rose 465 percent. On the other hand, Abbot Laboratories sells today at 61, same as in 1952, and its dividends have risen only 5 percent. Take electrical equipment. Radio Corporation has risen 45 percent in price and pays 50 percent more dividends. Emerson Radio has dropped 43 percent and passed its dividend.

And, in the office equipment group, National Cash Register shows a 344 percent gain, while Underwood a 67 percent loss. And, so it goes.

In the canning industry, which is presently under discussion, I could find if I had the time scores of success patterns which clearly indicate the effect and the performance of the "winning formula." Your industry basically is no different in characteristics than any other industry or form of human endeavor. The elements that make for relative success or failure exist in your business just as in all business.

Not only that, but with a little effort on your part you can very simply build a yardstick or measurement gauge for the industry and then compare your performance with it.

Since "Where you stand today" reflects the sum total of all the decisions, the acts, and the management of yesterday, comparison with such a yardstick will quite quickly produce the score of your own "winning formula."

In exploring this philosophy it is quite important to note that mere size of an organization is not necessarily the vital element in the "winning formula." Size and growth are indeed a record of the past, but not necessarily a guarantee of the future.

Remember the "winning formula" does not always go on winning forever. Napoleon had his Waterloo, Hitler his Channel crossing, and even the Yankees have been known to lose a Series.

It must be admitted, of course, that size does have some advantages in the success pattern. For one thing it was probably achieved out of successful past performance. As men generally "perform in the future as they acted in the past," size has the benefit of inertia.

Then, too, in recent years size of operation has picked up many added advantages. This accounts for the tremendous and shocking trend of integration within industries everywhere today. To the smaller operator and the independent, this building of Goliaths is truly an alarming thing. In my own industry, the Baking industry, hundreds of what we used to consider strong medium-sized operators have closed their doors or have been merged with big operators in the past 10 years. The landscape is so littered with defunct bakeries that it literally amounts to a holocaust and this likewise is true of yours and every other industry.

Curb it as we will by legislation or otherwise, the changing economy has built into the large-size operations certain strategic advantages which are impossible for an independent or an individual of medium size to match or overcome—alone.

Specifically, the most important of these are:

- (1) The power of capital
- (2) The advantage of research
- (3) Buying power
- (4) Management and manpower pool.
- (5) Marketing strength
- (6) Rising economic break-even

As long as these powerful ingredients are available for intelligent application to the "winning formula," Goliaths will be created and will arise in every industry.

Now, on the other hand, for the capable and aggressive individual or independent operator we see examples in thousands of them of successful "winning formula" applications on their part. Just to mention a few: the neighborhood grocer or baker holding his own right next door to the giant chain grocer; the fortunes that have been made by thousands of independent grocers who grew to supermarket stature in what was considered a dead industry 10 years ago.

Add to these outstanding case histories in your own or my industry—in fact every industry—and we come to the conclusion that there is still room for the operation of the "winning formula" anywhere we go.

However, while the individual also has his advantages in competition, specifically his independence, flexibility and his personal interest and touch, it is becoming apparent that these wonderful fighting Davids more and more need some new kind of slingshots to hold their own and equalize themselves in the battle of the Goliaths that is now raging.

If a way can be found for the strong medium range independent to match some of the built-in advantages of size and add to these those natural advantages he already possesses, we then immeasurably strengthen his "winning formula."

This, gentlemen, is the thesis I wish to explore. First, I want to tell you of a case history of at least one group who are successfully beginning to find the key to this problem.

Back in 1922, an era which had many counterparts of today's economy, the spectre of the growing chain grocery store loomed over the baking industry, coupled with this the great bakery chain operators: Ward Baking Co., General Baking Co., Continental and American Bakeries, were in the process of merger formation and growth. The next four years literally rocked the stock market with the excitement of these stocks.

A small group of intelligent independent bakers, frankly frightened by these problems, met to consider their position abstractly. They came to the very logical conclusion that "in Union there is strength." They decided that mutual aid and cooperation was the only sure key to survival and out of this meeting was formed the Quality Bakers of America Cooperative.

Basically, our founders believed in the philosophy that many things that can be done well individually can be done better cooperatively. Essentially, they dedicated themselves to explore all these areas—not all in the beginning, but one by one as time went on.

For example, it is a known fact that the sum total of the "know-how" in 100 plants is immeasurably greater than the "know-how" of any one. So, their first step was to build a code of ethics and a formula for a free exchange of "know-how" between each other without jeopardizing their independence of action. This is the primary purpose of our existence and it is fundamentally the reason for our success.

Very early in the game it was indicated that the most productive area in which we could help one another was through the establishment of a uniform cost system.

UNIFORM COSTING

By means of a cost report, every four weeks for at least 35 years, our members under code have seen and compared their operations with every other member. They have received in addition individually dictated analysis by a cost specialist. This uniform cost analysis is the very skeleton of our structure; all of our operations and all of our field services tie back to these figures. It is the common language through which we understand one another economically.

As time went on the real purpose of our existence began to clarify. It became more and more apparent that if we were properly to fulfill our destiny we would eventually have to duplicate all the services to our plants which a bakery owned by a large chain would receive from its headquarters.

In the beginning we were immature and poor—but ambitious. When we started, funds were very limited. The first two field departments that were started were production and sales promotion. Today we duplicate almost all the services of the largest chain organizations. Five or more days out of each month some serviceman or men from our service departments are working in every plant.

SERVICES

We have 175 people on our staff, all trained specialists, and some 45 of these are constantly on the road working in the plants. The list of services which follows shows the extent to which the germ of a cooperative service idea can grow.

Laboratory Production	Sanitation Personnel
Cake Manufacturing	Transportation
Accounting Service	Dealer Relations
Engineering	Sales Promotion
Purchasing	Insurance
Advertising	

PURCHASING

Very early in the game it was recognized that pooled purchasing was an extremely productive area in which to enjoy the benefits of cooperation. Accordingly, 35 years ago, our cooperative purchasing department was organized. We are fortunate in one respect in that purchased materials and ingredients cover a wide band of our members' cost picture, and the variety and types of items purchased is indeed broad.

In the beginning it took a great deal of persuasion to get the members to freely contribute their volume. Purchasing savings, while large in total, are very tiny as a percentage and bakers hated to give up the pleasure of horse-trading and the enjoyment of being wined and dined and entertained by salesmen.

As time, persuasion, and economic pressure worked to our advantage, members more and more saw the advantages of cooperative purchasing, and our volume has grown steadily over the years. Total purchases this year will be close to \$30,000.

MANAGEMENT CO-OPERATIVE

It might be interesting to record that our fundamental philosophy is of a management cooperative. No cooperative of this type should ever be formed with the primary objective of merely saving dollars. For one reason, the mere dollar saving percentage-wise is too small to make the effort worthwhile. More important than dollars are ideas, service assistance, know-how interchange; all of which are an investment in better management and a protection against large-size competitive operation. Yet, sufficient dollars must be found to pay for this service.



GEORGE N. GRAF

Our purpose in concentrating on purchasing savings is not for the mere purpose of securing cash savings, but primarily to secure funds to devote to service. As our purchasing savings grew over the years, we increased the services to the plants in proportion. We aim for a 100 percent ratio; i.e., we try to balance the amount of service given to the members in direct ratio to the purchasing savings earned. Thus, we actually become a giant jobber or supply firm which devotes all its earnings to professional service rather than to profits or entertainment, etc.

MARKETING AND ADVERTISING

From the very beginning, our founders recognized that we faced a two-fold battle area: efficiency in production on the one hand and competency in marketing on the other. Our merchandising and advertising departments have, therefore, always been our largest and most important service areas.

Today our members spend some \$12 to \$14 million annually in advertising. From the beginning we have always designed, created and produced our own material. Our billing to members covering the areas in which cooperation can save money averages between \$5 and \$6 million annually.

In 1942 we came to the realization that one of our most important goals was unfulfilled. By this time we had pretty well equalized ourselves in competition with the country's largest chain bakers in purchasing and in the normal efficiency services such as production, engineering, accounting and sales. However, at that time we had 87 different brand names. Our advertising because of imprinting was stilted and syndicated, costly and in-

effective at a vital time when radio, TV, and supermarkets were radically changing the economic climate.

Ineffectually we had previously made several attempts to concentrate on our own brand name. These attempts failed. In 1942 we started a new program in that direction. That's when our Sunbeam brand was born.

THE BRAND

Eight years later *Advertising Age* proclaimed Sunbeam one of the leading advertised brand names in America and two years later, after the short span of 10 years, Sunbeam rose from an unknown or unheard-of brand to the leading brand name in North America.

Let no one think this transition was easy either. Most of our members had entrenched brand names and often family names that went back a hundred years. It took great persuasion on our part and great courage and foresight on their part to take a step which meant that on a certain Monday morning the old brand disappeared and a new one took its place.

But, the logic, the need, the sales increases became apparent as each one joined the ranks. The economy and the power of impact grew with each plant added. Today we bow our heads to no one. For four successive months, for example, our outdoor posters have taken top honors in the Starch remembrance survey against all bakery and other food competitors, including Carnation, Wrigley's Chewing Gum, Morton's Salt, etc.

ADDITIONAL SERVICES

As time goes on, a Cooperative naturally discovers more and more areas in which cooperation pays off. In addition to the service benefits and purchasing, such areas as insurance and advertising begin to be explored and enable us to remit both tangible and intangible benefits to the members. In advertising, for example, we know that a measurable saving which we return in patronage benefits amounts to over a quarter of a million dollars annually, but the unmeasurable value in impressions, quality of advertising production and media benefits might well be over \$2 million.

We find that this all adds up to a good deal. Ben Franklin, speaking of cooperation, once said, "First you must give a little water to the pump. You may thereafter have all the water you want." Here in Quality Bakers we find a group of businessmen—120 in the United States and a dozen in Canada, Hawaii, and Bermuda—who have been willing first to give a little water. That strangely is the hardest part of the deal. As a result, they have created their own Goliath—strong enough to match any. They own and operate the cooperative. Together their volume this year will be close to \$300 million in sales. They

have beaten the sales progress and the profit performance of their largest competitors. They have developed management and guaranteed succession. In 35 years no QBA member has ever gone into bankruptcy.

Cooperation is the new slingshot which these Davids have found. Others, too, are beginning to find it. I can name a half-dozen industries in which alert minds are beginning to explore the opportunities that cooperation can offer for strength, progress and survival.

Can it be applied in your business? Well, frankly, I don't know because I'm not well enough acquainted with the canning business.

Little as I know, however, I would be willing to bet a dollar to a plugged nickel that it can. If we will apply the fundamental principles that "most things which can be done well individually, can be done better with cooperation," then I am sure that there are wide areas to be explored by both the large and the small among you.

Let me point out just two areas in your business which strike me as significant.

OPPORTUNITY FOR COOPERATION

Here are some figures taken from the publication *Price Spreads in the Canning Industry*, issued by the Senate Committee on Agriculture and Forestry. Take a look at this and weep—if you still have tears to shed.

Net take home profit For representative vegetable canners	3%
For representative fruit can- ners	2.5%
For composite of the two	2.2%

Don't tell me there isn't room in a performance such as that for cooperation as a solution for some of your manufacturing and marketing problems and don't tell me from what I know about the problem that cooperation couldn't help those operations by at least 1 percent—and that, in my book, is up to a 40 percent improvement in profits.

Now, take a look at the next two figures:

Cost to the door of the com- posite of representative samples amounts to	84.1%
Yet, the composite larger group which use national advertising shows a figure of	78.1%

In other words, the larger boys or the Goliaths, as we would call them, come to the door with almost a 6 percent advantage. If they would quit at that point, they would show 2½ times the profit of the non-national advertiser.

Don't tell me there isn't a whale of an opportunity here for production improvement and cooperation—and only cooperation can show that way.

Certainly, it is worth a trial, for apparently the independent has yet found no way to close that wide gap in production costs.

But, here is something more important. These national advertisers are smarter than you think. They don't take the short-sighted viewpoint and rush home with their profit. They invest it in the future via advertising. That's why they show a marketing cost of 17.8 percent vs. the non-national advertiser's 10.7 percent.

See what I mean about the big getting bigger and the smalls staying small? This is like a roulette wheel on which the house getting every green and double green knows eventually that all the money in the game ends up with the house.

And, doesn't this portray dramatically the needs of the Davids in this picture finding some way to equalize this advantage?

Value Line Survey summarized the reported earnings of the three major canning companies—California Packing, Libby, McNeill & Libby, and Stokely-Van Camp—over a period of eight years compared with canned food prices.

Data and charts taken from the Value Line Investment Survey dramatically portray the terrible sensitivity of operating profits in relation to canned foods prices. Because your profit margin is so tight, the slightest drop in the retail price results in a geometrical proportionate reduction in profits.

Value Line has this to say of the canning industry: "The major problem faced by the industry is that of equating supply with demand. Under-production, the result of a poor crop year, ordinarily brings about higher selling prices. Yet, the lower sales volume implicit under such conditions tends to restrict profits. A surplus of canned foods, on the other hand, invariably generates price weakness. The industry must finance its fluctuating inventories through liberal use of credit. The most marginal producers are often forced to liquidate their stocks even at unfavorable market prices in order to meet loan deadlines. The first 'special deal' triggers off a series of price reductions. When the smoke has cleared, many producers find that they are selling below cost . . . It is evident that a relatively small price change can have a drastic impact on earning power."

In this area of financing and marketing there is truly a tremendous opportunity for some form of cooperation—legally, of course—to achieve a smooth marketing movement, and surely there must be enough good minds within your industry to figure it out and find the key. Not only that, but any solution in this area no matter how obtained will help the small and the big alike.

From the little opportunity that I have had to study your industry it seems to be truly ready and ripe with opportunity to solve some of your problems through joint or cooperative action.

Never in our palmiest days did we in the baking industry have anything comparable. Yet, slowly with courage and determination we worked out a program for ourselves.

It has been truly said that "Success is not a journey—it is a destination." If so, no matter how well your "winning formula" has been winning, making greater progress and success your destination will help you.

The only powerful new and unused tool to equip the medium-sized, the individuals, and the independent today is cooperation—if they will pay the price to achieve it.

In the event that you are interested in exploring the subject, I would like to leave you this road map or guide. I present it in the form of steps or factors to be considered in forming a cooperative. Here it is:

FACTORS TO BE CONSIDERED IN FORMING A COOPERATIVE

(1) Are there any controllable costs which upon analysis can be reduced through joint cooperation or group effort? If there are, then your cooperative has a free ticket for survival.

(2) Can group rather than individual effort effect a more orderly and more profitable movement to market? If so, then the cooperators will enjoy a tremendous long range bonus.

(3) Will management "know-how" and experience be enhanced and multiplied by a free pool of the experience of many? If so, any financial investment you make will be better than a similar capital investment in your business. Improved "know-how" is an asset that can never be stolen, destroyed, worn out, or burned.

(4) Can group action and cooperative effort elevate the quality, prestige and product image of your output so that it becomes more valuable in the consumers' minds? If so, then the return on your effort and investment will be truly tremendous.

(5) Can cooperative action produce for small independent business the same services of research analysis and counsel that make big business bigger? If so, it can overcome the main obstacle that keeps small business small.

(6) Think for a moment—other than direct benefits—can you possibly foresee any intangible benefits which might be achieved through cooperative action and impossible under individual action? If so, these are extra pluses for you.

(7) Can group action make it eventually possible to achieve a common or national brand? In today's

changing markets this is the ultimate in marketing weapons.

(8) Aside from maintenance of any annual profit, your primary objective in business is to constantly increase the "franchise" or asset value of your company. Can you visualize how your part ownership and participation in a cooperative could possibly increase the asset value of your business against an eventual sale or estate?

(9) The greatest weakness of independent business is the failure to develop and train management succession. Is it possible that a cooperative could eventually help in this function?

(10) There is strength in unity and size. How much value is such strength to you in negotiating, bargaining, or gaining cooperation from your suppliers or sources of supply?

(11) Can group effort in any way reduce the cost of selling, brokerage,

distribution or movement to market. If so, this result alone will be worth searching out the formula.

(12) How much of your independence of action must you sacrifice in participation in group action?

A final piece of advice: the creation of a cooperative activity is an essentially intricate and delicate piece of work. If you ever contemplate it, you will need first of all an extremely motivated leader with lots of patience, altruistic enough to fight it through. You will need a group of individuals who believe in the principles and who are broad-minded enough and willing to make some sacrifices for it.

And, you will need, finally and most of all, extremely capable legal talent for guidance. Very few legal firms know this field. It requires specialists and it is vitally essential that you search the field for someone experienced in handling this form of activity.

1958. The tonnage gain was approximately 3.2 percent. That's the overall picture, and it's slightly more than the population growth.

When we look at individual products, the results are mixed. From the standpoint of dollars spent by consumers, the percent of increase was highest for canned juices, canned grape fruit and citrus salad. Among the canned vegetables, beets attracted about 3½ percent more dollars, green and wax beans gained a little over 2 percent, corn was just fractionally on the good side, and peas dropped off some 2 percent in dollar volume. Tomato products had an increase of slightly over 4 percent.

Fruit cocktail suffered a decline in dollars as did pears. Peaches and pineapple had little change from the previous year.

Let's turn from dollar volume and look at tonnage. Among the vegetables, green and wax beans had the greatest percent increase. Beets and peas did better than in 1957. Corn tonnage was down. Tomato products moved up by more than 3½ percent. As for fruits, the best showing was made by canned grapefruit, with a healthy 8½ percent rise. Pears and peaches were on the plus side, though not by very much, while pineapple and citrus salad didn't quite come up to 1957. Fruit cocktail was off by 5 percent. Juices did very well, up more than 7½ percent.

Let's talk about dealing for a minute. By this, I mean deals to consumers—not trade deals. Compared to other products, the amount of consumer dealing in canned fruits and vegetables is still relatively minor. But 1958 saw a marked increase in the number of consumer purchases involving deal merchandise. Generally speaking, this was more true of vegetables than fruits.

I'm not saying that the dollar volume moving through deals has become very heavy. It is still in the range of 3 to 6 percent. But I think it is noteworthy that the trend seems to be upward.

We could spend the rest of the day analyzing and reanalyzing these figures. Undoubtedly, each product's sales were affected by the weather, the size of the pack, the relative availability of fresh merchandise, and a dozen other factors with which you are all familiar. But that isn't the point. Sales statistics, whether good or bad, are traditionally "explained" or "accounted for" by unique circumstances. That's one thing we can always expect in the canned foods business—unique circumstances.

The real question which we want to answer is, "Did canners make the most of their inherent competitive advantages in 1958? Was 1958 a better year than could have been expected under the circumstances that prevailed?"

Marketing Opportunities for Canners

By Curtis C. Rogers,
Market Research Corp.
of America

The topic that has been assigned to me is "Marketing Opportunities for Canners." If you don't mind, I'm going to divide this into two parts... because I think you are faced with two entirely different kinds of opportunities.

Number one is a chance to sell considerably more merchandise by doing the same things you are doing now—only a little bit better. I say that very seriously. I'm sure there isn't a man in this room who can honestly say that there is no room for improvement in his operation. You could all think of a few ways in which you could do a better marketing job, if you really made up your minds to do it.

That's one opportunity, and I'll come back to it in a minute.

Your second opportunity is brand new, and even more challenging. It's a chance to change your whole approach to marketing—to do things in a different way, using different and more modern tools. You may decide, when I'm finished, that this new approach is not for you. But I think I would be short-changing you if I failed to point out the possibilities that now exist.

Let's get back to the first of your opportunities and start by defining our terms. When we use the expression "marketing opportunities", I think we are really talking about people. Specifically, people who can be persuaded to buy.

In this context, the present opportunities for canners are certainly

greater than ever before. Population growth alone assures that. Your sales are bound to go up as population increases, because canned foods have universal appeal and universal acceptance. You can break down the American population by any conceivable classification—income, occupation, age, residence, and so forth—and not find a single group that doesn't use canned foods. That is to be expected, because canned foods have all the features consumers want—quality, convenience and reasonable price.

Some groups of people, of course, buy more canned foods than others, and some kinds of canned foods are more popular than others. We'll come back to this point later. For now, let's agree that your opportunities to sell are growing every day.

Let's take a look now at some sales figures, to see what kind of progress canned foods are actually making. Many canned foods have shown fine progress since 1950. Here are some examples of the 1957-58 volume changes compared to the 1950-51 pack years:

Peas up 19 percent, green beans up 78 percent, corn up 54 per cent, and beets up 61 percent.

Peaches up 48 percent, fruit cocktail up 42 percent, pineapple up 10 percent, and pears up 58 percent.

However, during this same seven years, the volume of cake mixes has increased 107 percent—and, during this period the population increased 16 percent.

Now for the current situation comparing 1958 with 1957, according to the National Consumer Panel, taking canned fruits, vegetables and juices as a category, consumer expenditures were about 3½ percent higher in

I think the figures indicate that the answer is "no." It seems that 1958 was a year like most other years—some ups, some downs—and all of them explainable. There is no evidence that consumers were suddenly awakened to the fact that canned foods offer wonderful quality, tremendous convenience, and attractive prices. Generally speaking, it appears that housewives simply bought canned foods in much the same way that they have always bought canned foods.

This brings up another question. Can it be that there was nothing remarkably unusual about canned foods movement because there was nothing remarkably unusual about the way in which they were marketed? Are consumers buying "as usual" because canners are selling "as usual?"

I'm aware that there were a lot of promotions in 1958. In fact, there were more promotions on canned foods last year than in 1957. But that, in itself, is not unusual. It doesn't represent a basically different approach to marketing. And that is what I believe is needed—a basically different approach to marketing—if canned foods are to enjoy anything more than routine sales.

You're probably thinking, it's easy for Curt Rogers to stand up there and talk about new approaches. He doesn't have to worry about rain, or drought, or customers lost through mergers, or a backbreaking carry-over, or an incipient price break, or the local banker. Besides, we've heard this talk about new approaches before.

Maybe so. And maybe it's true that the best thing the average canner can look forward to is a "good year," like we used to have every once in a while in the past, a year when everything goes well, and the buyers turn friendly, and the banker buys the lunch. Whatever happened to those real good years, anyhow?

While we're waiting for another one to come around, I'd like to discuss the second opportunity I mentioned at the start, the opportunity to use new and different marketing tools.

Let me explain what I mean. Long ago, Shakespeare wrote, "There is a tide in the affairs of men which, taken at the flood, leads on to fortune."

There is one great tide in our affairs today. It can be summed up in a single word—*mathematics*. Most of the astonishing scientific and technological changes which have marked the past 15 years are based, fundamentally, on mathematics. That's true of atomic energy, or space satellites, and of just about every other great development you can name.

Scientists are able to probe inside the atom and outside the planet, are



CURTIS C. ROGERS

able to do things which were literally inconceivable a short time ago, because mathematics shows them how to proceed and teaches them how to build tools for the job.

Now here's the interesting thing: The same mathematical principles which are used in solving highly complex scientific and defense problems are applicable to marketing problems, as well, this is not just theory. It has been proved.

A growing number of companies are already preparing themselves, intellectually and operationally, to use mathematics in reaching decisions on competitive strategy, advertising expenditures, and many other marketing matters.

I can say to you with absolute conviction that a new "age of knowledge" is dawning in the business world. We will make far greater use of the skills and techniques that have been developed in both the physical and the social sciences. Mathematics happens to be a dramatic example, because it's so exciting to realize that the same methods which have broadened our scientific horizons will now expand our understanding of marketing functions.

However, it is likely that we will also build into future marketing programs the knowledge obtained from sociology, psychology and other social sciences.

As a matter of fact, this is already true of certain major research projects. The first National Menu Census is an example. This year-long study is a complete record of how the American people eat. It reveals exactly what happens to every food product brought into the home.

The design of this study combines the most modern mathematical prin-

ciples with factors that are significant from the standpoint of social scientists. The menu census is therefore an extremely valuable new marketing tool. It offers you the opportunity I spoke of before, to adopt a new approach to marketing of canned foods.

The menu census answers more questions and more subjects concerning food consumption than any other research study ever undertaken. Among other things, it throws a spotlight squarely on the most promising areas for sales expansion. And that is just as important for small and medium sized canners as it is for the largest manufacturers.

Here is what I mean. It is a fact that only a relative handful of food products are eaten by "everybody." This handful includes such things as bread, eggs, milk, coffee, and certain fruits and vegetables. On the other hand, the great majority of food products are not eaten by everybody. Many products, in fact, are eaten by only a small percentage of the population.

This is something that all of us know. But what do we do about it? In most cases, we go right ahead and pack the few items which everybody eats. We head in exactly where the competition is toughest.

By comparison, relatively few canners concentrate on the less popular products. They spurn the limited markets, overlooking the fact that here is where the greatest sales opportunity may exist.

As far as small and medium sized canners are concerned, the largest potential sales may very well be in the smallest market segments, if for no other reason than that the larger processors are frequently unable to go after this business.

One of the greatest values of the menu census for food canners is that it reveals the existence of market segments whose needs are not being entirely met. A canner can look at the menu census and find many dishes which are susceptible to canning, but not yet available in that form. There are wide open opportunities to add an extra little measure of convenience to certain other items, thereby saving the housewife a bit of time and effort.

We think one answer to the fierce competition which reduces profits today is to "disengage," to stop slugging it out for a thin slice of the big market, and to cash in on the softer pickings in less crowded, or even uninhabited markets. And here's a hint that may be helpful. Generally speaking, the older the family group, the greater the variety of dishes served.

Another worthwhile point to check is home canning. Conceivably there may be a good market in certain items which are now being canned at home.

The menu census lets you put your finger on the spot where you can move in with confidence and a more-than-ordinary chance for success, because for the first time you have a complete record of the way food is prepared, combined, modified, embellished and eaten in the home.

It lets you get off the treadmill and make the most of your great flexibility. It gives you a chance to give consumers the kind of convenience which you, as canners, are uniquely able to provide.

Speaking of the desire for convenience, here are some findings on the time it takes to prepare meals. About two-thirds of all morning meals are made ready in less than 30 minutes. As for the noon meal, fully 17 percent are whipped together in less than 15 minutes, and another 30 percent in less than a half-hour. More than one-quarter of all evening meals are prepared in less than 30 minutes, and more than 6 out of 10 are ready for the table in less than an hour.

The menu census has also brought to light some interesting facts about the variety of dishes served in American homes. Let's take a close look at the evening meal, which is the main meal of the day about three-quarters of the time. At 30 percent of these meals, 7 items are placed on the table. Eight or more items are served at 25 percent of the evening meals. On the other hand, at 17 percent of these meals, the family is offered only 4 or less items. You may wonder what kind of families these are, whose evening eating is limited to so few dishes. Are they a "casserole" market, perhaps? Are they a target for semi-prepared products? The menu census has the answer.

You may also be interested in the fact that breakfast has become the

"family meal" in our country. More family members are present at breakfast than at any other eating occasion. And breakfast accounts for 34 percent of the total food dishes served in the home. The evening meal ranks next, with 30 percent of all the dishes, followed by the noon meal with 23 percent. Eight percent of the dishes are consumed in snacks, and 5 percent are packed in carried lunches.

Food preparation is naturally affected by the length of time which the housewife spends away from home. Here are the findings. One-third of all days, the housewife is away for three hours or more. No wonder there is a big demand for quick-to-fix products.

One of the very illuminating measurements of the menu census is the so-called refusal rate. In other words, how many people turn down the chance to eat a product when it is placed on the table? This is obviously important, because a product which is regularly refused by certain members of the family will not be served as often as an item which makes a hit with everybody.

Among vegetables, peas, corn and beans all rank at about the 90 percent level. About 9 out of 10 people eat them when they are offered. By way of contrast, such vegetables as squash, beets, mixed vegetables and peppers have only 75 to 78 percent acceptance. And remember, this is the reaction when the item is actually sitting on the table. It is not a measurement of the percent of homes serving the product.

As you can see, the menu census provides information on aspects of food consumption that have never been explored before. It replaces hunch and guesswork with cold facts. It is the first major new tool of our

"age of knowledge" in food marketing.

I said a few minutes ago that you may decide a new approach is not for you. But I was asked to speak about "Marketing Opportunities for Canners," and this is an opportunity which deserves, at least, to be studied closely.

Let me take a few seconds, now, to sum up. From the standpoint of achieving greater total sales, your outlook is good. That's because canned foods, as a product, have almost universal acceptance and because the population is growing. You have not, by any means, exhausted your possibilities for market expansion or marketing improvements. Particularly good opportunities lie in market "segments" whose needs have not been fully met. The menu census is a new tool to help you identify those segments and their requirements.

Mathematics and the social sciences will be used increasingly to produce much higher levels of marketing efficiency. We have entered an "age of knowledge" in marketing, which will inevitably bring technical "breakthroughs" roughly comparable to those which have taken place in scientific fields. On this subject of knowledge, I'd like to repeat the words of George Santayana. He said, "Knowledge is a torch of smoky pine that lights the pathway but one step ahead, across a void of mystery and dread."

I think we are ready to take a step ahead, to start operating with a better understanding of the factors that really govern food purchasing and consumption.

Great rewards are in store for those who already have enough knowledge to read the handwriting on the wall.

THE GOVERNMENT MARKET FOR CANNED FOODS

PRESIDING: ALFRED J. STOKELY, Stokely-Van Camp, Inc., Indianapolis, Ind., Chairman, N.C.A. Procurement Committee

ADDRESS: "Procurement of Military Subsistence"—Maj. Gen. HUGH MACKINTOSH, Executive Director, Military Subsistence Supply Agency, Chicago.

ADDRESS: "The Federal School Lunch Program"—F. RICHARD BURKE, Assistant to the Deputy Administrator, Agricultural Marketing Service, U. S. Department of Agriculture, Washington, D. C.

ADDRESS: "How To Do Business with the Veterans Administration"—C. C. HOSKINSON, Chief, Management Section, Purchase and Contract Division, Supply Service, Veterans Administration, Washington, D. C.

ADDRESS: "State Agencies as Canned Food Buyers"—C. L. MAGNUSON, Supervisor of Purchases, State of Connecticut, Hartford, Conn.



ALFRED J. STOKELY

Procurement of Military Subsistence

**By Maj. Gen. Hugh Mackintosh
Executive Director, Military
Subsistence Supply Agency**

It is a pleasure for me to attend this annual convention of the National Canners Association. The food processing industry is, of course, an essential part of the great business of supplying subsistence to the armed forces of the United States. As Executive Director of the Military Subsistence Supply Agency, I would be remiss if I did not acknowledge the importance and the high regard the Agency holds for America's food canners.

I have also a personal obligation to acknowledge the help received from you at my one previous attendance at your convention, in 1951. Along with other representatives of The Quartermaster General, I was then seeking to obtain military requirements for canned foods after the seasonal pack for that year had already entered normal distribution channels. Aided by the leadership of your officers and supported by all of your members, we were able to divert sufficient of that pack to provide the quantities needed for military use. I will always remember that it was your cooperation which permitted us to meet the emergency requirements which then existed.

I would like first to say something about the Military Subsistence Supply Agency: what it is, what it does, and how it does it.

The Agency is one of the several single-manager organizations set up

in 1956 by the Department of Defense to supply each of the Services with certain items or services common to all. The single-manager concept developed from the national desire to eliminate undesirable duplication in the military supply program. It presently is being applied in such areas as subsistence, clothing and textiles, petroleum products, medical supplies, photographic equipment, and transportation. Each single-manager does his pertinent job all inclusively for the Army, Navy, Air Force and Marine Corps.

In our particular field—subsistence—the Secretary of the Army is the single manager. As Executive Director, I am his operating agent. My boss is The Quartermaster General, Maj. Gen. A. T. McNamara, whom many of you know. The Agency I direct owns and controls all wholesale stocks of food for the Department of Defense. In the process of supplying subsistence to the armed services, we check forecasts of the individual requirements of any one service against stocks on hand before procurement is placed. The net amounts that are purchased are financed through a revolving fund. This is reimbursed as each service pays for the food supplied to it. In order to distribute to the greatest advantage the wholesale stocks we buy, the Agency selects the storage facility—government or commercial—which best supports military activities within a given area.

It is pretty well accepted, and the program has demonstrated, that unification can result in greater operational efficiency and economy. We find

that large quantity purchases normally produce more economical procurement; shipping by carlot reduces transportation costs; inspection at origin minimizes rejections at destination; and centralization of organization keeps administrative costs at a minimum.

I am sure you are familiar with the Quartermaster Market Center System. It was set up in 1941 to purchase and distribute fresh fruits and vegetables for the Army and the Air Force (then a part of the Army). As the war progressed—and at the invitation of the Navy and reimbursed by the Navy for supplies furnished—this assignment was progressively expanded until it included purchase of fresh foods for all the services. The success of the unified buying program warranted its continuation, plus extension of scope to nonperishable foods, after the war. Buying continued under a cooperative but informal buying agreement between the Services. In 1956, under the Department of Defense single-manager concept, the interservice purchasing arrangement was formalized and the additional responsibilities for computing procurement requirements and for distributing and inspecting wholesale military stocks were added to the original market-center-system mission.

Some statistics will indicate the magnitude of our operations. For example, our procurement expenditures for fiscal year 1959, ending next June, have been programmed at \$742 million. These purchases will be financed through the means of a revolving stock fund. Its present capitalization is \$320 million. This includes cash and inventory.

Your particular interest, of course, is in the canned products purchased for the armed forces. In this respect, the following statistics for some of the principal canned items purchased from the 1958 fruit-and-vegetable pack should be interesting:

	Pounds	Dollars
Peaches.....	27,000,000	3,500,000
Pears.....	18,500,000	2,685,000
Fruit cocktail.....	16,000,000	2,390,000
Pineapple products, including juice.....	30,000,000	2,770,000
Peas.....	25,000,000	2,130,000
Tomatoes.....	36,000,000	3,302,000
Tomato juice.....	42,000,000	2,400,000
Tomato catsup.....	13,000,000	1,000,000
Lima beans.....	6,500,000	680,000
Citrus juices and grapefruit.....	21,500,000	1,841,000

No major changes are planned in regard to procedures for procurement from 1959 fruit and vegetable packs. We will continue to purchase certain items "as needed" or quarterly. Others will be bought on an annual basis, dependent upon our best knowledge and judgment as to their availability and need. In 1958, 18 seasonal items were purchased as needed while 30 were bought on the one-time annual basis. During the coming year, we will increase our emphasis on direct vendor delivery to using installations, particularly when and where such deliveries can be accomplished economically.

Geographically, our headquarters, like that of the Quartermaster Market Center System, has remained in Chicago. From here, we direct the activities of ten regional market centers and their subordinate field offices. Each of these market centers has the three-fold responsibility to purchase, distribute and inspect subsistence. Each directly supplies food, chiefly fresh products, to all military installations in its respective area. Each also procures extensive quantities of nonperishable food products not only for its own installations but for installations in other areas and in the oversea theaters.

As far as procedures are concerned, our buying is conducted under competitive principles. Every qualified producer interested in our business is invited to submit offers on our requirements. This assures wide distribution of our business and national participation in our contracts by all interested commercial concerns, both large and small, in this country. Contracts are awarded on the basis of cost and quality with the objective of obtaining the best value for the government as well as for the military consumer.

I might add that, on the whole, industry supports us in our demand for specification quality products. We strongly resist the pressure occasionally placed upon us by isolated groups asking us to take slow-moving products, products whose quality is less

than we should have, or products that have been eliminated from military procurement under the standardization feature of the unification program.

The invitation asking me to speak to you today suggested that I make "some comment on the influence on eating habits and food selection of military subsistence and feeding programs" and, too, that I say something about the "feeding programs in the future atomic and space age."

Rightly, these topics fall in the orbit of research and development. Such comments that I offer will, I trust, stimulate questions for which this meeting is designed. Key members of my organization, plus representation from the Quartermaster Food and Container Institute, are here with me today to provide the answers.

One of the topics, the effect of eating habits on military subsistence, or, military subsistence on eating habits, is an historic one. It is pretty well known that products developed for military use in wartime often have had major impact on the civilian market after the war. For example, our need for special rations in 1941-45 stimulated the development and subsequent use of dehydrated foods, instant coffee, canned meat combinations, canned bread, precooked meals, and other items.

A letter from a Liberty Loan Committee, written in 1918, recently came to my attention. It glowingly described World War I rations as consisting of "27 different articles." Among them were dried and evaporated fruits, then listed as important parts of the Army ration along with such standard staples as meat, canned fruits and vegetables, potatoes and onions. Lemon drops were termed "the soldier's favorite candy." Contrast this limited number of items with the multiplicity of products on today's military menu, one which indeed rivals that of its domestic and institutional counterparts.

Today, we are working on a whole new feeding system of prepackaged meals for troops in combat. Under this concept, there will be almost no need for cooks or "KP's" in forward areas; no need for refrigeration; no need for elaborate cooking utensils and mess equipment. Actually, such meals will include disposable cooking containers and mess gear.

This is made possible in part by improvements in containers and pre-packaging techniques. Most of all, it is becoming reality by the tremendous progress in dehydration of foods and in that completely new process—the preservation of foods by irradiation.

Industry has taken the leading role in the former. It has not only produced dehydrated foods with improved flavor and palatability, it has also produced such a new range of pre-



MAJ. GEN. HUGH MACKINTOSH

cooked dehydrated items that all that a cook—or even an individual soldier—has to do is to add hot water and he's got a hot meal.

The Army and the Quartermaster Corps, however, have carried the ball in developing the irradiated food process. Most of you know how the process works. Briefly, it consists of packaging a food item in either a flexible or rigid container and then subjecting it to pasteurizing or sterilizing doses of irradiation. This inactivates microorganisms that cause food spoilage. Then, as long as the container seal is unbroken, the food will keep at normal room temperatures.

Let me add that any fears as to what irradiation may do to the canning industry have been long since allayed. In point, I reiterate the simple fact that radiation preservation of foods depends upon the item being packaged to prevent recontamination.

These developments in food preservation presage foods for the space age. And here it is evident that the research program of The Quartermaster General seeks to keep pace with requirements foreseen for the atomic army of the future, the atomic submarine, and the high speed airplane and rockets now penetrating outer space.

In the time permitted, I have skimmed over some highly interesting subjects while in the main telling you about the more prosaic Military Subsistence Supply Agency. I reviewed our activities, however, with the feeling that you would like to be brought up to date with what is going on in our organization. In the telling, it seems that I have quickly consumed

the time so generously allotted to me. May I conclude my remarks by pointing out that MSSA is primarily a service organization whose main mission is to provide the best value in subsistence to its customers: the

soldier, sailor, airman and marine. I am happy to state that in doing the job we have had the best of cooperation from industrial groups such as yours. We need and appreciate such understanding and support.

The Federal School Lunch Program

**By F. Richard Burke,
Agricultural Marketing Service,
U. S. Department of Agriculture**

Within the framework of this panel discussion, the most significant thing about the school lunch market is that it is not primarily a government market. Most of the food used in the lunch program is purchased by the individual schools from local wholesalers and retailers.

The federal assistance program has long been a vital force in the expansion of school food services in this country and in their development along sound lines. Here are a few facts about the current status of school feeding operations, as revealed by a nationwide survey recently published by the Department:^{*}

Over 80 thousand public schools operate a food service for attending children;

About seven out of every eight of these schools participate in the federal program;

Cash receipts from food sales during the survey month came to about \$65 million, or over \$3 million a school day;

Most of that money, just over 80 percent, went for the purchase of plate lunches.

Now, what does all this mean for the food industry?

Nationwide, schools will spend in excess of half a billion dollars for food this year. That expenditure will represent about 80 percent of the value of all foods used by the schools. The remaining portion will be supplied by the U. S. Department of Agriculture—from purchases especially made for school lunch or from stocks acquired under price stabilization programs.

There is a heavy concentration of these school purchases on livestock and dairy products and on fruits and vegetables, because of the emphasis the National School Lunch Program places on the well-balanced plate lunch. The Type A school lunch, for example, must include at least two or more fruits or vegetables, or a combination of them; and the minimum quantity is three-quarters of a cup per lunch.

The Department does not specify what fruits or vegetables to serve, but we do recommend a Vitamin C-rich item every day and a Vitamin A-rich item twice a week. The individual school is also free to select fresh or processed items; fresh, canned, dried or frozen fruits and vegetables may be served under the federal lunch type requirements.

So, within the general character of the school lunch market which reflects the program's nutritional requirements, this market is what your salesmanship makes it. This is true even though, each year, some canned fruits and vegetables are usually included in the federally donated foods received by schools.

In 1957-58, for example, public schools received \$9 million worth of federally donated canned fruits and vegetables. Their own canned fruit and vegetable purchases were over six times that amount—about \$55 million worth. Canned fruit purchases ran about \$23 million; canned vegetables about \$32 million. In total, therefore, canned fruit and vegetable expenditures were running about 10 percent of the total food purchases by public schools.

These figures came from a special advance tabulation made for the Canners Convention from a second nationwide school lunch survey undertaken by our marketing research people. This survey will report on the kinds and amounts of food items purchased by schools, the marketing channels they use, and the buying practices they follow.

The preliminary results of this survey should be available before the end of the fiscal year. When they are available, it should be put on your list of recommended reading.

In recent years, most of the canned fruits and vegetables donated to schools have been purchased by the Department under the direct procurement program authorized by Section 6 of the National School Lunch Act. Usually the Section 6 procurement totals about \$15 million a year, of which an average of about \$10 million has been spent on canned items.

For this fiscal year, our direct purchase program was raised to \$50 million under a special authorization provided by Congress in the USDA's annual appropriation bill. So our canned fruit and vegetable purchase was increased to about \$17 million, providing a modest supply of some 10 different items.

As with all these purchases, our distribution of canned fruits and vegetables is planned with the advice of State School Lunch Directors and commodity specialists within the Department.

They are designed to help schools meet Type A requirements; they must represent a good buy from the school's standpoint; and, we try to help schools use these donated items in a manner that will enhance regular sales, once the donated supply is exhausted.

Under the Section 6 program, we buy only a portion of the school's annual needs for an item. Even with our bigger procurement program this year, our canned peach purchase, for example, represented but 8 one-half cup servings per child; enough canned green beans were purchased to provide about 4 servings; canned corn, about 2½ servings.

That is enough only to whet the children's appetite for such canned items.

I hope these facts and figures have served to accomplish my primary purpose: to arouse your interest in the school lunch program as a sales opportunity.

It is an important and growing market for food. Enrollments in schools below the college level are increasing by more than a million children a year. By 1965, about 47 million children will be attending these schools. As new buildings are built to house these youngsters, and as older schools are modernized, more and more food service facilities will be available to meet the growing demand for lunch at school.

You must get to know this customer so you can better meet its specialized needs. These programs operate on tight budgets but they emphasize quality and quantity in food. And they do have their own individual needs.

For example, we have recently discussed with your Washington staff the problem presented to the school by canned combination foods such as soups or stews. To meet the quantity requirements of the Type A lunch, the school lunch manager must know how much meat, or vegetables, is provided by a standard serving of these combination foods. There is no necessity of revealing company formulas, but the school which wants to use these foods does need "quantities" in order to be sure the lunch served meets the standards it must follow to receive federal assistance.

This is a market that should have your attention. For many children, the school lunch is their first experience with away-from-home eating. For all of them, their school lunch experience is bound to affect their food preferences and habits. Thus, the school lunch has implications for your future, as well as your current, sales opportunities.

* School Lunch Programs in Elementary and Secondary Schools of the United States, Marketing Research Report, No. 98, AMS, August, 1958.

How To Do Business with the Veterans Administration

By C. C. Hoskinson,
Supply Specialist,
Veterans Administration

There is no set rule to follow in organizing for effective purchasing, as the functions involved in purchasing and management often vary widely between services, agencies, administration, and departments, dependent on the laws and regulations covering the particular government agency. In this presentation I shall discuss the general organizational considerations which we, at the Veterans Administration, are bound by legally and the policies which we have found vital in attracting the greatest competition and securing the items at a price most advantageous to the Veterans Administration in the procure-

ment of our yearly requirements of canned foods. In no sense, however, do I wish to imply that any feature of our program is necessarily applicable to any other agency or department.

We have three supply depots where all of our hard subsistence (canned foods) is stored and redistributed to our 170 hospitals located throughout the United States. These depots are located at Somerville, N. J., Hines, Ill., and Wilmington, Calif. Mr. Lester Boehm, Chief of the Marketing Division for Subsistence, has his office at the Hines Depot, where all of our specifications are developed, the requirements determined, the invitations to bid issued, and contracts made. If any of you have any questions relative to these bids after they

are issued, feel free to contact Mr. Boehm for his assistance at the telephone number set forth in the upper righthand corner of page one of the invitation for bid.

The payment for the merchandise is made by the receiving depots indicated on the purchase order, namely, Somerville, N. J., Wilmington, Calif., or Hines, Ill.

If you are not presently on our list of bidders and wish the necessary forms, you should write Mr. Boehm, Box 27, Hines, Ill. and ask for Standard Form 129, Bidder's Mailing List Application, together with the commodity list of all subsistence items. Complete this form in duplicate and return to the Hines Depot, attention Chief, Marketing Division for Subsistence, together with the list of commodities checked for the items on which you wish to bid. After this has been done you will start receiving

Veterans Administration Requirements for Canned Foods from the 1959 Pack

Following are the estimated requirements of the Veterans Administration for canned fruits, vegetables and fish to be procured from the 1959 pack—by grade, can size, and estimated quantity:

CANNED FRUITS AND FRUIT JUICES

Description	Grade	Can Size	Dosen Cans
Apples, sliced	C	\$10	7,800
Applesauce	A	\$10	7,880
Applesauce with strained red raspberries	—	\$10	7,000
Apricots, halved, unpeeled, water pack	B	\$303	11,600
Apricots, halved, unpeeled, heavy syrup	B	\$10	7,398
Apricots, halved, peeled or unpeeled, solid pack—no added water or syrup	D	\$10	7,000
Blueberries, native or cultivated, water pack	C	\$10	2,400
Cherries, RSP, water pack	C	\$10	6,750
Cherries, light sweet, unpitted, water pack	B	\$303	10,000
Cherries, light sweet, unpitted, heavy syrup	B	\$10	4,650
Figs, Kadota or Magnolia, water pack	B	\$303	6,275
Figs, Kadota or Magnolia, Heavy Syrup	B	\$10	4,135
Fruit Cocktail, heavy syrup	B	\$10	7,433
Grapefruit, light syrup	B	\$303	45,558
Grapes, Thompson's seedless	Fancy	\$10	1,385
Juice, Apple, single strength, unsweetened, clear	A	46-oz.	16,320
Juice, Grape, single strength, Concord, unsweetened	A	46-oz.	8,442
Juice, Grapefruit, natural	A	46-oz.	44,000
Juice, Prune	—	46-oz.	10,000
Olives, dark, ripe, unpitted, thrown pack medium or large	B	\$10	640
Peaches, yellow clingstone, halved, water pack	B	\$303	18,780
Peaches, yellow clingstone, halved, heavy syrup	B	\$10	10,324
Peaches, yellow clingstone, sliced, solid pack, without water or syrup	C	\$10	1,744
Pears, Bartlett, halved, water pack	B	\$303	18,080
Pears, Bartlett, halved, heavy syrup	B	\$10	13,140
Pineapple, slices (whole) medium, water pack	A	\$2	8,646
Pineapple, slices (whole) medium, extra heavy syrup	A	\$10	5,533
Pineapple, crushed, heavy pack, sweetened, extra heavy	A	\$10	3,062
Pineapple, tidbits, extra heavy syrup	A	\$10	3,720
Pineapple juice	A	\$10	21,080
Plums, purple, fresh, water pack	B	\$303	8,858
Plums, purple, fresh, heavy syrup	B	\$10	4,744
Plums, green gage or yellow egg, heavy syrup	B	\$10	1,825
Sauce, Cranberry, jellied or strained	A	\$10	1,420

CANNED VEGETABLES AND VEGETABLE JUICES

Asparagus, all green, cut spears. Cuts not less than $\frac{1}{2}$ inch or more than 2 inches	A	\$10	9,765
Asparagus, as above except sodium content restricted to not more than 6 mg. per 100 grams	A	\$303	14,300

Description	Grade	Can Size	Dosen Cans
Beans, dried, regular process, red, in brine	A	\$10	3,47
Beans, green, cut ($\frac{3}{4}''$ — $1\frac{1}{2}''$), round-sizes 2, 3, 4, 5 and/or 6, or flat-sizes 3, 4 and/or 5	B	\$10	18,464
Beans, Green, as above except sodium content restricted to not more than 3 mg. per 100 grams	B	\$303	11,883
Beans, Lima, any variety, sizes tiny, small, medium and/or large	B	\$10	6,378
Beans, Lima, as above except sodium content restricted to not more than 7 mg. per 100 grams	B	\$303	5,183
Beets, sliced, small or medium size	A	\$10	14,103
Beets, puree	\$2		5,574
Carrots, sliced or diced	C	\$10	2,904
Carrots, puree	\$2		9,794
Catsup, tomato	A	\$10	5,225
Corn, cream style, golden	B	\$10	5,406
Corn, whole grain, golden	B	\$10	8,122
Hominy, whole, white, lye process	—	\$10	1,070
Juice, tomato	A	\$10	17,518
Juice, Tomato, sodium content restricted to not more than 12 mg. per 100 grams	A	\$2	10,976
Juice, tomato concentrate	—	32-oz.	1,800
Juice, vegetable cocktail	—	46-oz.	9,480
Mushrooms, white, stems and pieces	C	16-oz.	7,860
Peas, sweet, sieve 3, 4 or 5 or any combination 1-6, 70% 3, 4 and/or 5	B	\$10	17,213
Peas, as above except sodium content restricted to not more than 7 mg. per 100 grams	B	\$303	17,574
Peas, puree	—	\$2	11,640
Pimento, pieces	—	\$2½	4,322
Potatoes, Sweet, whole and pieces in light syrup	A	\$2½	34,185
Pumpkin	A	\$10	1,276
Sauce, Chili	A	\$10	1,750
Sauerkraut	A	\$10	3,798
Tomatoes	B	\$10	14,820
Tomatoes, sodium content restricted to not more than 12 mg. per 100 grams	B	\$303	10,860
Tomato Puree, medium	A	\$10	11,427

CANNED FISH

Salmon, red or sockeye	—	\$1	21,954
Salmon, red or sockeye, sodium content restricted to not more than 60 mg. per 100 grams	—	\$1½	7,421
Tuna fish, light meat, chunk style in vegetable oil	—	4-lb.	5,400

Tuna fish, light meat, chunk style, sodium content restricted to not more than 50 mg. per 100 grams

Items listed will be purchased by the Marketing Division for Subsistence, Veterans Administration Supply Depot, P. O. Box 27, Hines, Ill. Any questions regarding the requirements should be directed to the Chief, Marketing Division for Subsistence at that address, or Columbus 1-6700, extensions 277 and 278.

the invitations to bid as they are issued, and if at any time, for any reason, you are not in a position to bid on a particular item at the time specified on the invitation but wish to remain on our bidder's list, just drop a postcard in the mail to the depot and very briefly say you are not in a position at that time to bid but wish to have your name retained on the list of bidders.

We use Federal Specifications in practically all of our purchases. However, just be sure upon receipt of an invitation to bid from us that there is no exception taken to the Federal Specification as there may be instances where the Federal Specification is being revised and we may use the U. S. Standard or some other specification for the present buy.

We purchase all of our yearly buys of fruits and vegetables during the canning season and endeavor to open our bids for these items during the peak of the canning season. On the majority of these invitations we allow bids f.o.b. point of origin as well as f.o.b. destination, the time of delivery to be determined at the time the purchase order is placed.

You will note that in these bids we make a statement that allows us approximately three months' storage at your plant from the date of the contract. This is done in order that we may schedule shipments into our depots in an orderly manner and not have cases of peak shipments to be unloaded in any one week. If you receive an award from us on which you have bid f.o.b. point of origin, naturally we will issue the bills of lading and immediately upon receipt at the destination indicated in the purchase order of the inspection reports (grading certificates), custody receipt for the merchandise, and in-

C. C. HOSKINSON



voice properly executed, that depot should place your invoice in channels for payment. Therefore, you will receive the payment for the merchandise promptly in order to replenish your working capital or cut down on interest charges. In the event you bid f.o.b. destination your invoice will not be processed until delivery is made to the depot.

We have prepared copies of our estimated requirements of canned fruits and vegetables for 1959 and they are now available.

We endeavor to keep our invitations to bid uniform and all conditions understandable if read carefully. We use the Government Standard Form 33, Invitation to Bid and Award, Standard Form 36, Continuation Sheet, and Supplementary General Provisions for Subsistence on all bids. Standard Form 32 is also incorporated by reference.

It would be appreciated, if you are bidding, if you allow us at least ten days from the date of opening to accept your offer. You, or your representative, may attend the opening of all bids in which you are interested. Our bids are strictly competitive and award made to the low bidder if bidding on specifications and no exceptions are taken to them.

All inspection costs and supervision of loading costs are to be paid by the contractor. The present rate is \$5 per hour. However, this is subject to change at any time and before bidding on any item you should consult your nearest USDA office for the current rate.

The question may arise in some of your minds as to why we require certain grades of canned fruits and vegetables. This is due to the fact that we feed sick people. These are all ex-GI's, the majority of whom have service connected disabilities.

State Agencies as Canned Food Buyers

**By C. L. Magnuson,
Supervisor of Purchases,
State of Connecticut**

I appreciate very much the opportunity to participate, as a representative of state government procurement agencies, in this session of the 52d annual Convention of the National Canners Association.

In the time allotted to me, I shall attempt to inform you of various aspects of state government purchasing activity pertaining to procurement of canned foods. I hope that what I have to say will contribute to a better understanding on your part of the nature of the state government market for canned foods.

I am a firm believer that a knowledge of the respective roles played by both producer and consumer lead to mutually beneficial results. To accomplish this two-way understanding, I sincerely hope that arrangements can be made to have a representative of the National Canners Association as a program participant at one of the annual meetings of both the National Association of State Purchasing Officials and the National Institute of Governmental Purchasing, which organizations are devoted to the development and improvement of public purchasing.

To properly and adequately reflect country-wide state purchasing activity as it relates to the procurement of canned foods, a few weeks ago I sent a questionnaire dealing with the subject to the 45 states in which, at least to some degree, centralized purchasing is established. The views and data which I shall present to you is developed and projected from the responses received from 30 states, which collectively comprise approximately

72 percent of this country's total population based on the U. S. Department of Commerce provisional estimates of the population of the states as of July 1, 1958.

Projected from institution population figures supplied by 15 states located in various sections of the country, approximately two-thirds of 1 percent of this country's population are confined in institutions maintained by the states. In number, this totals an estimated 1,140,000 persons.

It goes without saying that a tremendous quantity of food must be provided to feed this institutional population. In addition to considerable amounts of food produced on institution farms, an annual expenditure of some \$150 million of tax money is laid out for the purchase of food from commercial sources of supply. Of interest to your industry is the fact that collectively the states purchase in the neighborhood of 5 million cases of canned foods annually at a cost of around \$25 million. Thus, one-sixth of each dollar expended for food goes for the purchase of canned foods.

Unfortunately, I do not have available a breakdown representing the needs of the states for various categories of canned foods. However, perhaps our experience in Connecticut may serve somewhat as a guide. We annually purchase approximately 125,000 cases of canned foods. The following is a percentage breakdown of our purchases by category:

Fruit and vegetables (including juices)	88 percent
Jams, jellies, and preserves	3 percent
Meats	3 percent
Fish	2 percent
Pickles and relishes	2 percent
Soups	2 percent

In descending order with respect to quantity purchased, peaches, pineapple, fruit cocktail, pears, apricots, sweet cherries, and grapefruit, together with pineapple, orange, grapefruit, and blended juices, are the major items of canned fruits and juices which we purchase, accounting for 76 percent of the total. The major items of tomatoes and tomato products, green and wax beans, peas, corn, asparagus, beets, and sauerkraut, in descending order with respect to quantity purchased, comprise 90 percent of our total canned vegetable purchases.

Eighty percent of our canned fruit and vegetables purchases are made in No. 10 tins. Fruit juices in No. 3 cylinder tins account for an additional 9 percent. Purchases in No. 3 and No. 303 tins account for only 3 percent of the total.

As producers, you are interested in the specifications used, and the level of quality required by the states. The great majority of the states purchase with direct reference to United States Standards promulgated by the U. S. Department of Agriculture for all products on which such standards are available. Some states purchase according to Federal Specifications or local state specifications, both of which generally incorporate requirements set forth in the U. S. Standards. The Standards Committee of the National Association of State Purchasing Officials has recommended the use of U. S. Standards by all states. In those areas of canned foods not covered by U. S. Standards, an increasing number of states are adopting the use of Federal Specifications. It has been our experience that, rather than attempt to develop our own specifications at the state level, the use of specifications developed at the national level is the more acceptable approach, which policy is widely supported by industry. Specifications developed at the national level usually are the cooperative effort of both producer and user, and as such, normally reflect commercially available standard products. Use of nationally developed specifications normally results in more widespread competition, thus contributing to our efforts toward better purchasing performance, and at the same time facilitates business relationships with our suppliers. A common language between buyer and seller promotes better understanding, with mutually beneficial results.

An indication of the quality level of state requirements for canned foods is found in the application of United States Grades to purchases made by various states. Collectively, data from 30 states indicates that on purchases based on United States Standards, 23 percent of total purchases specify U. S. Grade A, or Fancy; 58 percent of total purchases specify U. S. Grade B, Choice or Extra Standard; and 19 percent of total purchases

specify U. S. Grade C, or Standard. Four states indicate that 50 percent or more of their purchases call for U. S. Grade A; 17 states indicate that 50 percent or more of their purchases call for U. S. Grade B, and 3 states indicate that 50 percent or more of their purchases call for U. S. Grade C. I believe I am entirely correct in stating that in the past few years there has been a considerable and widespread trend toward the purchase of higher quality food for state institutions.

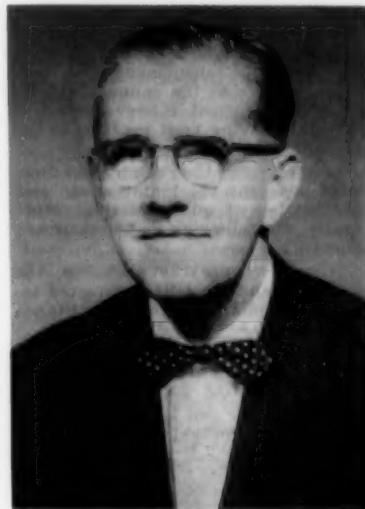
Most of the states purchase canned foods every three months. A few states variously schedule their purchases for periods of one month, four months, six months, or annually. Frequency of purchase is usually dictated by budgetary allotment periods as well as storage facilities. Only a very few states schedule their purchases to coincide with time of pack.

Without exception, all states report that purchases are made by the competitive bidding process, with most states providing for the submission of formal sealed bids which are publicly opened and read on the date and at the time specified in the bid invitation. Most states maintain lists of prospective bidders to whom bid invitations are sent. In addition, the majority of states, by law, are required to publicly advertise bid solicitations. While the method or yardstick for awarding of contracts may vary somewhat according to statutory provisions, awards are generally made to the lowest responsible, qualified bidder complying with specifications and other stipulations made a part of the bid.

Delivery requirements vary considerably from state to state. There are perhaps a half dozen states which operate central warehouse facilities which permit deliveries to be made to a single destination. Central warehouse studies are currently in progress in several additional states. Normally at present, however, deliveries must be made to the respective user institutions on a state-wide basis. Some of the larger states, because of distribution problems, subdivide the state into zones, with separate contracts being awarded for deliveries to institutions located within the respective zones.

Particularly with respect to states purchasing canned foods on a three month or lesser period, delivery of total requirements can normally be accepted in one shipment. Purchases made for longer periods of time, as well as for institutions lacking sufficient storage facilities, make necessary the scheduling of multiple deliveries. On the other hand, with respect to many of the larger institutions, a combination of substantial quantities and adequate storage facilities make possible the delivery and acceptance of canned foods in full carlot or trailer-truck loads.

Since most states purchase on a delivered price basis, the movement of



C. L. MAGNUSON

commodities from source to destination rests with the contractor.

Increasing attention is being given by the states to the important and essential factor of quality control. While a few states inspect and test canned foods in state-owned laboratories, the great majority of the states look to the U. S. Department of Agriculture grading service as their watch-dog for quality control. More and more states require that shipments of processed fruits and vegetables be accompanied by a USDA Certificate of Quality and Condition as evidence that the product delivered meets the standard of quality specified. The service rendered the states by the USDA in this respect deserves and receives our highest commendation and thanks. Other methods of quality control finding increased usage by the states involve specification compliance certifications by manufacturers and the establishing of quality acceptance levels by palatability testing procedures.

The states themselves are substantial packers of canned fruits and vegetables, with an annual pack estimated to exceed one and one-half million cases. For the most part, the products packed are produced on institution farms largely with the use of inmate or patient labor. Other products produced on institution farms for state use include fruits and vegetables for in-season use, milk, eggs, meats and poultry. It is interesting to note that in one state, food, representing 26 percent of the total cost for food, was produced by the institutions in their farming and canning operations.

I am sure that you are interested in some of the suggestions made by the states concerning matters which they feel will facilitate the purchase

of canned foods. I fully realize that, while from our viewpoint achievement of these objectives is desirable, they may present unsurmountable obstacles insofar as the canned food industry is concerned. However, we will appreciate having your reaction to the following observations:

Foremost of the comments presented concerns the maintenance and identification of quality levels. Specifically, the following suggestions are advanced:

- (1) Closer cooperation between the industry and the USDA directed toward compliance with U. S. Standards.
- (2) Increased participation by the industry in processing food under continual USDA supervision.
- (3) Provide for can labels to identify quality of contents according to U. S. Grades.

State purchasing officials are continually and constantly on the alert in their efforts to stretch the tax dollar and at the same time maintain the proper level of quality required. Ability to buy from original sources of supply is an important contributing factor toward securing lower prices. The states solicit greater interest and participation by the canned foods packers in bidding direct on state requirements, particularly on purchases which permit shipment in full carton or trailer truck load quantities to a single destination.

Canned foods are normally available in a wide range of container sizes, many of which reflect but minor variations in capacity. We urge continued efforts on the part of the industry to achieve greater standardization of container sizes.

We have expressed a few thoughts concerning matters which we feel will aid us in our purchasing of canned foods. Members of your industry, individually or collectively, no doubt have some suggestions you would like to pass on to us. We earnestly solicit your interest in making known any new or corrective action we might take which would make it easier for you to do business with state governments, and which would result in our getting the greatest value for each tax dollar spent, which goal, I am sure you will agree, is worthy of our combined efforts.

In conclusion, please let me assure you in all sincerity that, in general and by large measure, the states are very well pleased and satisfied with both the quality of product and service with which you of the canned food industry are providing us.

FOOD EDITORS CONFERENCE

**PRESIDING: KATHERINE R. SMITH, Director, N.C.A.
Consumer Service Division**

ADDRESS: "Government Activities Affecting Canned Foods Consumers"—R. B. HEINEY, Assistant to the Secretary, N.C.A.

ADDRESS: "Economic Trends Favoring Canned Foods Consumption"—CARLOS CAMPBELL, Executive Secretary, N.C.A.

ADDRESS: "How the Canning Industry Makes Use of a Canned Foods Editorial Feature"—GEORGE ANDERSON, Dudley-Anderson-Yutzy, New York City



KATHERINE R. SMITH

Government Activities Affecting Canned Foods Consumers

**By R. B. Heiney,
Assistant to the Secretary,
National Canners Association**

One of the reasons industries have trade associations is so they will have industry representation and be kept informed of consumer interests as expressed through the ideas of members of Congress in the legislation they introduce. My remarks, therefore, will be directed toward legislative subjects, except that to start with, I am going to warn you that it looks as if the cost of growing canning crops is

due for some increases, principally because farm labor is going to cost more. I doubt that further mechanization on the farm and continued improvements and efficiencies in growing methods will offset the increase in agricultural labor and fringe costs.

These increased costs on the farm could result from a rather effective propaganda campaign that has been going on for a number of years but with stronger impetus in recent weeks—a campaign directed toward improving the social and working conditions of agricultural workers. The only

comment I wish to make about the campaign is that it has painted a nasty, distorted picture of the life of farm workers by showing the agricultural slums as examples of the average. This type of campaign, unfortunately, steers the nation closer and closer into the national socialism of federal control and the regulation of the everyday life of the individual.

But what are these cost increases that the consumer might eventually have to pay?:

- (1) Higher wages resulting from the establishment of minimum wage levels in agriculture,
- (2) higher standards for labor camps and housing,
- (3) reimbursement to the worker for his transportation,

(4) operation of child day centers,
 (5) payment of insurance by the employer,

(6) the cost of subsidizing overnight rest camps, and

(7) the cost of federal registration of crew leaders, the labor subcontractors who organize and direct the migrant groups from job to job.

Not as a result of any propaganda campaign but to be charged to that more fearsome cancer of economics— inflation—canners also will be paying increased wages. We feel especially unhappy about this as an industry because, as all of you know, we have shouted with pride about the fact that canned food prices have risen least of all the components in the cost of living. We have contributed least to inflation; or stated positively, we have contributed most to maintaining a stable economy. But it seems we are not quite big enough to whip inflation alone and when labor costs in the industries that supply us and in the industries that are our neighbors go up, ours go up too. We will do everything possible to hold down our labor costs in spite of our own wage increases and any increases in raw product cost resulting from increased farm wages, but it appears that we will end up with the necessity of some increase in prices.

FOOD SURPLUSES

The food surplus problem is being attacked in Congress in many ways. Old programs are being looked at again and novel ones are being suggested. Here are some samples:

Congressman Billy Matthews of Florida has a bill to set up \$500 million worth of survival food depots to take care of us should we be the recipients of atomic or thermonuclear weapons. Whether his proposal should be enacted or not, I don't know, but I do admire the list of foods he wants stored, for it provides for "flour milled from surplus wheat, butter made from surplus milk, powdered milk made from surplus milk, (now we are getting to the interesting items) canned beef, canned pork, and other canned meats, fruit juices, fruits, vegetables, and other foods, which have been canned, processed or otherwise prepared in a suitable form for storage, and a supply of rations of a type prepared for use by the Armed Forces of the United States sufficient for the initial emergency period." These foods, the Congressman recognizes, even with their superior storage factor, would have to be put into consumption and replaced with new stock periodically.

This would pose major distribution problems as would such programs for government surplus disposal as stamp plans, compensatory payments, and direct distribution plans.

STAMP PLANS

These programs are bad for two good reasons: (1) They substitute an arbitrary judgment of what people should eat for the collective judgment of individuals, and (2) they by-pass the normal, private enterprise, channels of trade and distribution. The first reason is strictly philosophical: it represents the basis of democratic society. The second can be explained as practical: taxes, the commodity which supports the amount of government we want, come from the operation of private enterprises including those in trade and distribution. If we remove or reduce that function, we remove or reduce our tax revenues.

Some additional reasons for opposing stamp plans, compensatory payments, and direct distribution plans will come to mind if we look at them in some detail. Stamp plans were tried out by the Department of Agriculture during the 1939-43 period to increase food consumption among low-income families. The programs were discontinued when unemployment virtually ceased. Two stamps were issued to the needy; one stamp, orange in color, in effect was bought by the participating family with its budgeted food funds. With the orange stamps it received, free, a supply of blue stamps. The blue stamps were good for foods designated by the Department of Agriculture as being surplus foods.

The Department of Agriculture says the 46 months' testing of the program showed without doubt that it increased food consumption levels among participating families; it upgraded their food use by increasing the consumption of animal products and fruits and vegetables. However, even with the wholehearted cooperation of the channels of food distribution, there were compliance problems such as the sale of nonsurplus foods for the blue stamps and the cash purchase of blue stamps by grocers. It required case worker investigation of the need of recipients and constant reinvestigation. Case loads were as high as 1,000 families. The program had another major failing and this would certainly be basic to any new surplus disposal plan through the use of stamps. It developed that the number of surplus commodities in relation to the additional purchasing power made available became so numerous in many months that the additional purchasing power was so thinly spread it had no effect.

If we consider the number of commodities the Department has each month nowadays on its "surplus" or "best buy" lists, you can visualize what kind of giveaway program would be required to bring them all and maintain them all in a stabilized position. And, of course, if that happened it would be a production stimulus, and off we would go again. A friend of mine, who as a colonel

headed up the Army's subsistence procurement activity a few years ago, explained when Congress or commodity groups pressured the Quartermaster to buy more of this or more of that food, that he would be delighted if they would only furnish him with a million or so stomach stretchers. In a fashion that is another way of saying that the only real answer to surpluses is markets, and this means that some of the food industry is going to have to wait for more population to get out of a surplus position.

COMPENSATORY PAYMENTS

A number of years ago former Secretary of Agriculture Brannan became identified with the idea that the way to assure farmers of parity was for the government to make direct or compensatory payments to them. Under the Brannan Plan, these payments were to be the difference between what the farmer received in the market place and what was figured



R. B. HEINEY

to be the parity price for the commodity or some established percent of parity. That is certainly a nice clean fast way of doing a job. Even the proponents, however, understand that such a plan could literally run hog wild so they tack on various controls and limitations. Sometimes these are expressed in double talk such as the following description of a bill introduced by Senator Talmadge of Georgia as carried in a national farm organization newsletter: "It would eliminate all acreage controls and government loans; assign each producer a domestic production quota (in volume units) computed mainly from production-consumption figures of five preceding years, provide supplemental payments as necessary on this quota to raise the unit return from it to

100 percent of parity, and limit to \$25,000 the amount of supplemental payments that might be made to any one producer."

A few minutes ago I suggested that we look at some of these plans in some detail, so let's look at a bill introduced by Congressman Metcalf of Montana. This is a 183-page document that might modestly be called an omnibus measure. We are considering provisions relating to "Balancing Market Supply With Demand." Here is a lovely bit of rhetoric in that bill:

"The nationwide, farmwide, all-commodity marketing quota for any crop year shall be the volume expressed in dollar value at parity income equivalent prices of all farm commodities that may be determined by the Farm Income Improvement Board as the volume that can be sold by farmers and ranchers for average national prices received by farmers and ranchers of not less than 80 per centum nor more than 100 per centum of parity income equivalent prices in such crop year calculated on the assumption that the number of unemployed in such year be not greater than 3 per centum of the total civilian labor force."

I won't ask you to listen to any more details of farm legislation, so let's look at some other problems bothering Congress that have a consumer interest angle:

For example, should there be established a Consumers' Advisory Bureau in the Department of Commerce? Congressman Dollinger of New York thinks so, in order to provide the people of the United States with more complete and accurate information concerning the relative quality, utility and abundance of the various types of consumer goods available on the retail market. With such information, Mr. Dollinger points out, consumers could purchase more intelligently. What he proposed seems to be the food editors' daily job, so perhaps he should consult with you people about the need for such a new department of our government.

Another problem, and one of public health, is the manner in which we continue to give consumer protection against the residues of insecticides, fungicides, and the application of mold and rot inhibitors, and the use of artificial colors. The problem we are reading about at the present time concerns the use of a coal-tar color for fresh oranges. It proves that life is complicated, at times, especially under our food, drug, and cosmetic laws and regulations. The present complication comes about because the law says that no coal-tar color may be used if it is harmful. The law doesn't qualify the word "harmful." After long years, the Food and Drug Administration discovered that a coal-tar color which had been certified was in fact "harmful." The difficulty was taken to Congress and a temporary amendment to the law was enacted to allow

the use of the "harmful" color which in fact is harmless when used only to color the skin of oranges, until a harmless substitute was developed or until February 28 of this year. A new color has been developed—harmless when used as a coloring for orange skin—but not harmless in the rigid concept of existing food and drug law. So Congress is rushing to meet a February 28 deadline and pass a bill allowing the temporary use of the new color, this time until September 1, 1961 or until some other legislation is enacted.

It's this other legislation that is of most interest because the plan of the Department of Health, Education, and Welfare calls for a permanent amendment to the Food, Drug, and Cosmetic Act that would place upon the users of any artificial colors the responsibility of proving their safety in the quantities proposed for use. The plan would be to make the theory of the food additive legislation enacted last year apply to all colors. This is a particularly good example of the complications of food and drug law and regulation because the food additive amendments enacted last year covers the point and, parenthetically it can be added, the Administration complimented the passage of the legislation and those who helped in its development. The food additive amendment places the burden of establishing safety on the user rather than the

burden of proving it unsafe on the Food and Drug Administration. In addition, legislation dealing with the use of colors in or on foods can become quite controversial, reopening for example the question of whether or to what degree and under what circumstance there may be consumer deception through hiding quality defects with added coloring.

There are many more consumer interest subjects before Congress but to conclude I want to point out that there are about 40 state legislatures in session. These law-making bodies are concerned with such problems as food additives, marketing controls, labor regulation, and individual commodity proposals dealing with cannery warehouse inspection fees, fees for inspecting and certifying tomatoes, the dating of dairy beverages, the dating of fresh perishable foods, privilege fees for canning or dealing in salmon or other fish, and the licensing of fruit juices and fruit beverages at the state level. These are samples of subjects of consumer interest. At least we must assume they are of consumer interest because they certainly aren't the brain children of businessmen.

I hope I have given you a little more insight into how close the interest of the consumer and that of an industry are in the same subject and possibly an idea or two for your columns. If we can help you in developing an article, please let us know.

Economic Trends Favoring Canned Foods Consumption

By Carlos Campbell,
Executive Secretary,
National Canners Association

I have been asked to share with you some opinions regarding economic trends that affect the consumption of canned foods. In fact, I believe that I have been confined to only those factors that favor the consumption of canned foods. There are two ways we can do this; the easy way and the somewhat more difficult. I prefer the latter. It would be easy to enumerate a large number of economic factors that may affect the consumption of canned foods by varying degrees and without any quantitative analysis regarding the effect of each. It seems to me, however, that it is more meaningful to consider only a few of the more important of these factors, and consider their effect in somewhat greater detail and provide some information that may support the views expressed.

I will, therefore, with your indulgence, deal with only two of these factors—population and prices. Biologists might question my classification of population increases as economic. I admit that it may be discussed under

either of these headings but for today I prefer to discuss it as an economic influence. At the current rate of increase there are about 3 million more mouths to feed each year; or if you like it in percentages this represents a national increase of slightly less than 2 percent. It can also be concluded that the total quantity of food consumed each year increases by about the same percentage since the average per capita consumption is practically the same one year after another. It is as though a city the size of Chicago were added each year. To feed Chicago takes a lot of meat and potatoes and other food, roughly about 4½ to 5 billion pounds. That means a grocery bill amounting to \$1.25 billion at current food prices, thus making the nation's food bill more than \$75 billion for 1959.

Canned foods' share of this annual increase adds to about 300 million pounds.

Another population influence that should be mentioned is the movement from rural to urban districts. A larger percentage of today's population is buying food and a smaller percentage is depending upon food raised on their own farms. A larger percentage of the women are now em-

ployed; this fact has added to the demand for food in prepared form.

We are told that during the next 20 years the percentage of the population under 15 years of age and over 65 will increase twice as fast as the total population. Speaking of the latter group only, which is frequently designated as the senior members of our population, there were 14 million over 65 (less than 9 percent of the total population) in 1955 but by 1975 it is expected that there will be about 22 million (or 21,999,999 if I don't make it), roughly 11 percent of the estimated population. Nutritionists tell us that one of the sad plights of our older people is that they do not eat properly because their meager incomes are not spent wisely and also because of lack of facilities for proper food preparation. The canning industry, with your help, has a wonderful opportunity to correct both of these nutritional problems of our senior citizens.

Some years ago it was said that canned foods were the poor man's food. Today, how do we explain the fact that the increase in the consumption of canned foods has kept pace with the increase in incomes? There are two logical explanations for this seeming paradox. First, the popularity that canned foods have enjoyed for many years among the lower income groups has carried over, and, now that these workers find themselves in higher income brackets, they are reluctant to part with the food which they have learned to like and appreciate.

The other reason why the per capita consumption of canned foods increases along with incomes is that canned foods have long been recognized by the shopper as having more value for the price than most other foods. It is easy for one to become confused in his thinking with regard to the effect of price on the sale of food. The demand for food as a whole is highly inelastic. Thus, one would reason that about the same amount of food would be purchased by the consumer regardless of price. That, of course, is assuming that the consumer has sufficient income to purchase the amount of food she wants; and at the current level of incomes today that is a reasonable assumption. This reasoning seems to be supported by statistical facts, since the average consumption of food is about the same, one year with another, in spite of increasing food prices. There is no denying the fact that the demand for food is highly inelastic, and thus it follows that it is futile to try to raise the average per capita consumption. No amount of price reduction will accomplish this. There may be more food wasted but not more consumed.

When one considers individual foods, however, the story is quite different. The demand for some foods is highly elastic and for others suf-

ficiently elastic to note a definite relationship between prices and quantities purchased. Furthermore, the housewife, who is a smart buyer, will tend to select the lower priced of two foods of the same quality. These behavior characteristics of food buyers account in part for the increased consumption of canned foods, prices of which have advanced less rapidly than prices of competing foods.

A discussion of prices would not be complete without some reference to inflation, that parasite on our national economy which may prove to be a more destructive force than communism.

Most people think of inflation only in terms of rising prices or they may describe it in terms of the decreased purchasing power of the dollar. Unfortunately, inflation bears some resemblance to Mark Twain's weather in that everybody talks about it but seems to do nothing to correct it. It is my conviction that little if anything will be done to stop inflation. The reason is quite clear. Incomes have increased more rapidly than prices. The measure of one's welfare is not how much the dollar will buy, but how much will the number of dollars received during a given period of time purchase. While the purchasing power of the dollar has been declining the purchasing power of income has been increasing. As long as that situation continues for the majority of the voters, you can expect a lot of talk but little action.

How does inflation contribute to the increase in the consumption of canned foods? It comes about in this way. In the race between labor organizations to increase wages and employers to recoup the increased labor costs by raising prices, the canner has been put to the severest test to survive. Intense competition has forced the canner to hold labor costs down in spite of increased wages and to pass this saving on to the consumer in the form of smaller price increases.

Thus canned foods have not increased in price as rapidly as other foods that can't avoid reflecting the full amount of the increased wages. These price advantages may be expected to accrue to a consumer of canned foods only as long as the canner is able to keep ahead of this inflation spiral.

Canned food, the original packaged food, is not just a food; it is a service package as well. That service is frequently too briefly described as "built-in maid service." The expression is too often used to describe all of the services that have been performed on the raw product including getting it ready for processing as well as the cooking operation itself. Many who use it think of the expression as describing the operations that belong peculiarly to the cook; namely, selection of raw materials, blending, sea-

soning, and otherwise preparing them for final serving on the table.

It is well to consider that canned foods may be divided into two distinct classes with respect to the services that are sold with the food. The first of these may be described as the foods as nature grows them, in which the canned product is essentially the cooked or processed form of the raw product. It has been carefully cleaned and cooked in such a manner as to insure the maximum retention of the nutrients that nature put in, but with little or nothing more added, except possibly some simple seasoning. Built into these foods is a vast amount of service, service which for the most part is performed on or near the farm and in the factory and constitutes considerably more than what I understand a maid's job is today. It is this class of foods that can properly be defined as nature's foods prepared and cooked ready for the housewife to use either as they come out of the can or as the basic foods to be used in the preparation of dishes into which she introduces her own artistic talents.

Some people seem to think that the housewife's demand for this type of foods is diminishing and that there is a much greater demand for those foods that have been mixed, blended, seasoned, and otherwise prepared by the canner for immediate serving on the table when heated. Such foods are frequently called recipe foods. There is no denying the fact that there has been a considerable increase in the demand for canned foods of that type. That trend has been noticeable in the frozen food line also. The point I am trying to make, however, is that the increase in the demand for these recipe-type foods has not diminished the demand for the fruits and vegetables prepared and cooked in their natural form.

Vegetables are a good example. The public is consuming more vegetables today than it did 20 years ago and this increased consumption has taken place in the processed form of vegetables.

These facts are revealed in the July issue of *The Vegetable Situation*, quarterly published by the Agricultural Marketing Service of the U. S. Department of Agriculture.

The USDA report shows that the average per capita consumption of the 10 principal vegetables was 126.86 pounds in 1957, compared with 100.4 pounds in 1937. The increase in processed vegetables was actually more than the difference of these two figures because consumption of fresh vegetables declined.

The AMS report gives a detailed 20-year record of consumption of these vegetables in the three forms in which they are marketed: fresh, canned, frozen. All figures are in terms of the fresh equivalent and consequently are comparable.

Consumption in the fresh form declined from 49.3 pounds in 1937 to 39.8 pounds in 1957, a net loss of 9.5 pounds. Consumption of these same vegetables, in the canned form, increased from 50.15 pounds to 75.65, a net gain of 25.50 pounds. Consumption in frozen form increased from .95 pounds to 11.41, a net gain of 10.46 pounds. The combined gain of canned and frozen vegetables was 35.96

pounds with canned vegetables outgaining frozen at a ratio of about 2½ to 1. The rate of increase for canned was better than one pound per year, whereas frozen gained only about one-half pound per year.

One might ask the question, why this greater consumer preference for canned vegetables? The answer is, that housewives have discovered that "Nature's best—is better canned!"

How the Canning Industry Makes Use of a Canned Foods Editorial Feature

By George Anderson,
Dudley-Anderson-Yutzy

Although you may not realize it, you ladies and gentlemen who are guests of N.C.A. at our food editors conference today have admirers in 2,073 towns across the country. If you want the bands to play and the people to cheer, just pay a call in Oconomowoc, Wisconsin; Traverse City, Michigan; Salem, Oregon; Le Sueur, Minnesota, or any one of the 2,069 others on that map. Believe me, you'd have a ball.

As you may have guessed, all those dots on the map represent canning plants, and the men and women who make up the canning industry. With your wonderful cooperation, it hasn't been hard to get cannery to realize that food editors of newspapers and magazines, radio and TV broadcasters, extension agents, and home economists responsible for recipe and new product development are among the nicest people in the world.

We've painted a picture of you for our canner friends. Would you like to know what you look like?

First, you're human. You're also attractive, well-informed and sensitive to your audience and their needs. You're imaginative, creative, interested in food and how it rates in flavor and appearance, nutrition, convenience, economy, availability and quality. Heaven knows, you're a friend of the canning industry. Through your own food pages it is evident that you have endorsed the objectives of N.C.A.'s Consumer and Trade Relations Program in glamorizing and revitalizing canned foods.

For example, *McCall's* in "Head Start on Dinner" shows readers how well they can eat when canned, pre-cooked and ready to eat foods are used imaginatively.

Modern Romances says that "Cans can make a party. Canned foods serve more guests for less money and on a moment's notice, too."

Seventeen offers recipes for eighty from canned foods and a plan to keep work to a minimum.

American Home states, "We wish to thank this progressive industry, which has given us the magic key for opening treasure chests of food from all lands . . . foods that would have been beyond attainment not too many years ago."

Look magazine recommends a picnic in the snow. "Canned foods are handy and may be eaten right in the can."

Ohio Farmer tests its readers with a quiz on canned foods.

Family Weekly has dishes mother used to make adapted to today's convenience foods.

American Weekly features deluxe dishes from cans. "For easy to prepare meals keep some almost-ready foods on hand."

What's New in Home Economics suggests modern ways with green vegetables and vegetable juices in cans.

Institutions says get on the gold rush to canned food specialties.

Food Service gives the biggest reason for canned food popularity: they're top-flight portion controlled items, they're labor saving and they're accepted wholeheartedly by the public. Can opener cookery is described in the *New York Herald-Tribune* and the *Dallas Morning News*. American favorites are presented in the *Los Angeles Herald Express* and the *Milwaukee Journal*, and by Katherine Smith on *WBAL-TV*, one of her television appearances.

"Food chains recognize the importance of canned foods and give them strong and continuous promotion" (*Chain Store Age*). Cannery know that you are among their most influential friends in the country. We know they can help you, too. That's why we at DAY and the N.C.A. staff try to make sure that every important mention of canned foods gets attention among industry members. Here are some of the ways we tell them:

Each week N.C.A. distributes its INFORMATION LETTER to every canning company, its management personnel, its advertising and public relations agencies.

Bulletins from N.C.A.'s Consumer and Trade Relations Program reach



GEORGE ANDERSON

about 1,200 canners, advertising agencies, the can companies, the steel companies and suppliers.

Reprints and attractive brochures featuring the editorial article are mailed to the same people. And in each case we tell the story of the special market reached by the publication, its readers, their interests and how they are served by your food editorial features.

Sometimes we work with promotion departments in setting up special events like display contests in conjunction with an editorial feature. An example is this *American Weekly* canned foods promotion.

The most recent example is *McCall's* Super Market Month celebration. Working with the promotion department, we sent out our first news release and bulletin to canners in September and October. In November cannery received a list of the canned foods to be promoted and a list of the stores which would use special Super Market Month displays. Finally in December we sent an actual poster distributed by *McCall's* to 2000 retailers across the country.

And whenever possible we tell of canned food editorial promotions in person at the many state and regional canning industry meetings.

When cannery learn of editorial features on canned foods, it's somewhat like the House that Jack Built. The cannery tell their brokers, brokers tell their wholesale and key retail customers, who tell the store managers, who often tell the consumers.

And maybe some day someone will tell your boss that the canning industry says, "Thanks for a great job. We all salute you."

FISHERY PRODUCTS CONFERENCE

PRESIDING: DONALD P. LOKER, Star-Kist Foods, Inc., Terminal Island, Calif., member of the N.C.A. Fishery Products Committee
 ADDRESS: "Law of the Sea"—LOFTUS E. BECKER, Legal Adviser, U. S. Department of State, Washington, D. C.

The Breadth of the Territorial Sea and Fisheries Jurisdiction

By Loftus E. Becker,
 Legal Adviser, U. S.
 Department of State

It is a great pleasure to meet with you this afternoon in order to discuss the related problems of the breadth of the territorial sea and jurisdiction over fisheries. The intimate relationship between these two problems was dramatically illustrated at the Conference on the Law of the Sea which convened in Geneva under the auspices of the United Nations on February 24, 1958, and which lasted for nine weeks to its adjournment on April 28 of last year.

The first serious international attempt to codify the Law of the Sea was made nearly three decades before—in 1930—when representatives of 48 countries, including all of the major maritime powers, met at the Hague under the auspices of the League of Nations. At that time, there existed only a relatively narrow range of difference with respect to the proper breadth of the territorial sea. The participants generally favored breadths of 3 to 6 miles. Despite the narrowness of this gap and the relatively small number of countries participating in the conference, the Hague Conference was unable to reach agreement on this issue. The principal difficulty was that a number of the participating delegations were wholly unwilling to accept a 3-mile territorial sea unless it were to be accompanied by recognition of the customary rule of law that a state may exercise preventive and protective control over a belt of the high seas contiguous to the 3-mile territorial sea for certain related purposes, such as customs, fiscal, immigration, and sanitary controls. The purpose of such a rule is to make it unnecessary to broaden the territorial sea—over which the coastal state exercises complete sovereignty, subject to the right of innocent passage—when the basic purpose can be served just as well by a limited jurisdiction over an additional belt of the contiguous high seas. At the Hague Conference, a number of countries, principally those of the British Commonwealth and Japan, were greatly opposed to recognition of such a contiguous zone although they strongly favored a 3-mile territorial sea. The

United States, on the other hand, recognized and accepted both the 3-mile territorial sea and the concept of such a contiguous zone which, as you will note, involves no control of fishing by the coastal state beyond the 3-mile limit.

Unfortunately, the participants in the Hague Conference were too much at odds on these issues to come to terms in 1930.

Nineteen years later, the International Law Commission (ILC) drew up a provisional list of topics, the codification of which it considered necessary and feasible. Both the regime of the high seas and the regime of the territorial sea were included in this list. Professor J. P. A. Francois, a distinguished Dutch professor, who had also served for a time as Legal Adviser to the Netherlands Ministry of Foreign Affairs, was appointed as Special Rapporteur, and among the topics to which he was instructed to give priority was the regime of the high seas. In 1951, Professor Francois was appointed Special Rapporteur for the regime of the territorial sea, as well.¹ In the report of its Eighth Session in 1956, the ILC presented a report containing 73 draft articles on the Law of the Sea.

On the basis of the ILC's report, the General Assembly at its 11th Session adopted a resolution deciding:

"* * * in accordance with the recommendation contained in paragraph 28 of the report of the International Law Commission covering the work of its Eighth Session, that an international conference of plenipotentiaries should be convoked to examine the law of the sea, taking account not only of the legal but also of the technical, biological, economic and political aspects of the problem, and to embody the results of its work in one or more international conventions or such other instruments as it may deem appropriate."²

¹ At the Commission's Third Session in 1951, pursuant to a recommendation contained in General Assembly Resolution 374 (IV).

² United Nations General Assembly Resolution 1166 (XI), February 21, 1957, General Assembly, 11th Sess., Official Records, Supp. No. 17, (A-3572).

After the United Nations General Assembly called for a conference on the Law of the Sea in 1957, the United States at once began extensive pre-conference preparations. My office prepared exhaustive legal memoranda on the 73 articles of the ILC draft. The Department also sent instructions to all United States diplomatic posts, informing them that the United States attached great importance to the forthcoming conference, which would deal with very difficult and controversial issues in which the United States had a vital interest. An important aspect of the preparations for the conference included discussions with other governments for the purpose of obtaining their views, and particularly for the purpose of promoting the widest possible understanding and acceptance of the United States' position. All Foreign Service posts were instructed to report to the Department on a continuing basis any available information concerning developments in the various countries in connection with the conference. Preconference diplomatic preparation was carried out through field trips by a number of government officials to supplement the discussions undertaken by the diplomatic missions. The United States delegation to the United Nations also actively participated in these preconference preparations.

As all of you know, the United States adopted a 3-mile limit for its territorial sea in 1793 and our Government has not since departed from that position. The United States Government believes that the 3-mile limit, which affords a maximum freedom of the seas, is in the best interests of all states, large and small, old and new.

By the latter part of the nineteenth century or the early part of the twentieth century, the 3-mile limit was firmly established as customary international law. It has been the consistent position of the Department of State that no greater breadth of territorial sea can be justified in international law, and numerous protests have been filed on this basis when broader claims have been asserted.

There have, of course, been various states which have asserted from time to time a right to a broader territorial sea—to 6, to 12, and even to 200 miles. In some instances, such broader claims have been based upon security grounds, as, for example, in the case of the U.S.S.R., which claims 12 miles.

In other instances, these broader claims were based upon the alleged economic requirements of the coastal states which maintained that they were entitled to appropriate to their own use all fishing grounds lying between 3 and 12 miles off their coasts or even farther, even though such offshore fishing grounds had theretofore as high seas been regarded as the common property of all nations. In so far as the United States is concerned, such unilateral appropriations of vast areas of the high seas are contrary to the common good, contrary to our own security interests, and contrary to the valuable economic interests of our overseas fishing industry.

The difficulties which the United States faced when the Law of the Sea Conference opened in Geneva just one year ago, in the latter part of February, 1958, can scarcely be over-estimated. As compared with the 48 nations attending the Hague Conference in 1930, 86 participated in the Geneva Conference. Of these, the entire Soviet bloc was insisting for political and military reasons upon a territorial sea 12 miles or more in breadth. Such an extension of the territorial sea, if adopted on a worldwide basis, would pose a very grave threat to the security of the United States. One of the reasons for this is that submarines can operate only with the greatest difficulty and with substantial risk under water within 3 miles from shore. The effectiveness of their operation would be greatly increased in areas between 3 and 12 miles from the coast. If the territorial sea were uniformly extended out to 12 miles, enemy submarines could operate in the territorial waters of neutral states with excellent chances of remaining undetected. This would be particularly true of modern submarines with atomic power which are able to remain submerged for long periods of time. Basically, the sea power of the United States is on the surface and in the air. In time of war our surface ships cannot operate nor can our aircraft fly over the territorial waters of neutral states without violating the neutrality of those states. The fact that the Soviet Union at the present time has nearly 500 submarines indicates that this problem is by no means academic.

The dangers presented by an extension of the breadth of the territorial sea from a military standpoint are by no means limited to the perils of submarine warfare. If territorial seas were uniformly extended out to 12 miles, the operation of our Sixth Fleet in the Mediterranean would be greatly circumscribed. The Straits of Gibraltar in their entirety would become territorial waters and the Aegean Sea would be transformed into a number of disconnected high seas areas. Moreover, although surface ships are entitled to a right of innocent passage in territorial seas, no

comparable right of innocent overflight of territorial seas is recognized for aircraft. Consequently, any broad extension of the territorial seas would gravely impede the operations of our carrier-based aircraft.

I have dwelt at some length on the implications of Communist aspirations to extend the breadth of the territorial sea out to 12 miles in order to illustrate the grave peril that this would pose to the security of the entire free world. Willing compromise on issues so vital to our security is unacceptable. Only the impossibility of continuing to maintain the 3-mile limit in international law could lead us to accept any extension and that, at all costs, must be held to a minimum.

Further support for the communist position advocating a 12-mile territorial sea was afforded at the Geneva Conference by a number of Arab states which hoped, by such an extension of the territorial sea, to extinguish Israel's right of passage through the straits entering the Gulf of Aqaba. Indeed, shortly before the conference met, both Saudi Arabia and the United Arab Republic unilaterally announced the extension of their territorial seas to 12 miles.

As a result of these military and political considerations, when the conference opened, not less than 20 states were firmly committed to the support of a 12-mile territorial sea. The importance of this can be gauged from the fact that in order to gain acceptance for any proposition in the plenary session of the conference, a two-thirds affirmative vote was required.

Even before the Geneva Conference opened, it had become evident that there was but little chance of reaching any accommodation with the Soviet bloc or with the Arab bloc. Our sole chance of preserving the 3-mile limit in international law lay in reaching some agreement with those states—and there were many of them—whose desire for a territorial sea more than 3 miles in breadth was based upon their wish to control fishing along their coasts.

It is not difficult to understand why they sought such control. The commercial importance of the resources of offshore areas has greatly increased and this has been accompanied by great technological strides in the methods of reaching and exploiting these resources. The newly created states, particularly, did not possess the most modern capabilities in this regard and desired to exclude those who did. There has also been an increasing demand for food and raw materials. A number of states attempted to capitalize on this in an effort to capture new sources of revenue. Some of these attempts to gain increased control over offshore fishing areas have been made in the name of conservation, but such an attempt has often been made where,

in fact, a genuine conservation problem did not exist. The basic drive was to secure the benefits of local offshore fisheries exclusively for the local population. This could be done by extending the breadth of the territorial sea or by providing for a contiguous exclusive fishing zone for the coastal state.

Let me give you some examples. In Latin America, critical economic problems caused by a reduction in exports of such products as coffee, wool, sugar, lead and zinc moved many of these countries to seek an extension of their territorial seas in order to acquire or consolidate new sources of revenue. Chile, Ecuador and Peru each claimed exclusive jurisdiction over areas adjacent to their coasts out to a distance of 200 miles. Argentina has made claims of sovereignty over the water above the continental shelf extending for hundreds of miles into the Atlantic Ocean. Mexico's 9-mile territorial sea claim has vitally affected our shrimp fisheries in the Western Gulf of Mexico.

Canada aspires to the exclusive right to exploit the fisheries off its coast for a distance out to 12 miles regardless of the currently existing historic rights of other countries.

India, Burma, Thailand, South Vietnam, Cambodia, Korea and a number of other states, in the interest of limiting the activities of Japanese fishing vessels off their coasts, were also inclined to support proposals extending the breadth of the territorial sea.

Panama wished to have the conference recognize her claim that the Bay of Panama is an historical bay comprising internal waters from which all foreign shipping could be excluded.

The Philippines and Indonesia asked the conference to support their proposal that the waters "around, between and connecting" the islands of an entire archipelago be treated as internal waters (as to which there does not even exist a right of innocent passage) and that the territorial sea be measured from a series of straight base lines. The adoption of this proposal would have converted huge areas of the high seas into internal and territorial waters and would have closed vital sea lanes and air routes between and among the United States, India, the Far East, Australia and New Zealand.

The initial United States position on the territorial sea at the Geneva Conference was based squarely upon security grounds. We were advised by those charged with the responsibility for our national security that the importance of preserving the 3-mile limit was such that we were bound to make every effort to preserve it. After a careful—and I may say agonizing—review of every possibility, the United States decided that if we could gain general acceptance for a

3-mile territorial sea, to concede to coastal states an additional 9 miles contiguous zone in which they would have exclusive fishing rights. Therein lay, in our considered judgment, the only possibility of reaching two-thirds agreement to continue the 3-mile limit.

When it became clear to us that such agreement could not be reached, the United States delegation offered a compromise proposal which provided that the territorial sea should be extended to 6 miles, with the right of the coastal state to regulate fishing for an additional six miles, subject to historic fishing rights. This proposal likewise was put forward only after it had received consideration at the highest levels of our government and it constituted a sincere effort to reach agreement on these complex problems. We sought on the one hand to meet the economic interests of states which wanted to protect the fisheries off their shores, while, on the other, to preserve the rights of those having historically fished in such areas. The United States' compromise attempted to accommodate the two conflicting aspects of the fisheries question; namely, the extent of the rights of the coastal state off its own coasts and the extent of the rights of foreign fishermen to fish off another state's coasts. At the same time, this compromise limited the breadth of the territorial sea to 6 miles, which would have defeated to a large extent the efforts of those who sought an extension of the territorial sea to 12 miles for military and political reasons.

The attractiveness of the United States compromise proposal was evidenced by the fact that in plenary session it received more votes than any other proposal, 45 to 33, and lacked only seven of the nay votes of being adopted. Mr. Arthur Dean, the very able Chairman of the United States Delegation, stated at the end of the Conference that the non-acceptance of the United States proposal to agree on a 6-mile breadth of territorial sea leaves the pre-existing situation intact with the United States continuing to adhere to the existing international law rule of 3 miles.

I should like at this point to refer briefly to the four conventions which were adopted and which, I think you will agree, constitute important additions to the body of codified international law. The Convention on the Territorial Sea and the Contiguous Zone provides a definition of the juridical status of the territorial sea and a system for delimiting such waters; it establishes the right of innocent passage and provides for a contiguous zone for certain specified purposes. The Convention on the High Seas defines the high seas and lists a number of the important activities encompassed by the term "freedom of the high seas," such as the freedom to fish. This Convention also deals with

a wide variety of topics such as the right of navigation, the status of ships, the immunity of warships and other government ships, the safety of navigation, penal jurisdiction in matters of collision, the duty to render assistance, the right of visit, the right of hot pursuit, pollution of the high seas, and the right to lay submarine cables and pipelines. It is significant that a Soviet attempt to insert a high seas nuclear testing ban in this convention was defeated. Such a provision would have prevented our most recent nuclear tests and would have seriously impeded the current negotiations on this topic at Geneva.

The Convention on the Continental Shelf provides for the exercise by the



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coastal state of sovereign rights for purposes of exploration and exploitation of natural resources up to a depth of 200 meters, or beyond to the limit of exploitability. The Convention defines the natural resources within the domain of the coastal state in such a way as to exclude such crustaceans as shrimp, but includes oyster beds and pearl fisheries.

The Convention on Fishing and Conservation of the Living Resources of the High Seas constitutes a comprehensive code regulating the conservation of the natural resources of the sea complete with a procedure for settling disputes. The United States tried very hard to have included in this Convention a provision establishing the doctrine of "abstention" as a rule of international law. In general terms, this doctrine provides that where a country or a group of countries have invested time and capital in the development of a fishery to a point of maximum sustained productivity, nations which have not formerly participated in such fishery

should abstain from doing so in the future. After a resolution on abstention procedure failed to gain the two-thirds majority required for its adoption by the Conference, the Chairman of the United States Delegation stated that it will continue to be the policy of the United States to pursue the objective of the general acceptance of the procedure of abstention, and that the United States will enter into agreements with interested states which will incorporate this sound conservation measure.

You may well ask at this point, "Where do we go from here?"

On the tenth of December of last year, the United Nations General Assembly adopted a resolution⁸ convening a second Law of the Sea Conference at Geneva in March or April, 1960, to reach agreement on the questions of the breadth of the territorial sea and fishery limits. The United States is already actively engaged in consultations with other governments with a view to reaching an agreed position on these questions which will be likely to gain acceptance by a two-thirds majority at the next Conference.

Because of the requirements of our national security interests and our responsibility with respect to the defense of the free world, the United States cannot accept an extension of the breadth of the territorial sea out to 12 miles and will seek in every way possible to reach an agreement which will provide for a narrow territorial sea. The achievement of this objective, vital to the security of ourselves as well as our allies, is of paramount importance. I am convinced, however, that this objective can be achieved through mutual cooperation and by meeting the legitimate economic interests of a number of states which would then support our position for a narrow territorial sea.

The success of our efforts will depend largely on our ability to solve the fisheries question. It seems to me that an arrangement envisaging a narrow territorial sea coupled with an exclusive fisheries zone, which preserves the right of those who have historically fished there to continue to do so, would accrue to everyone's benefit. It would strike a just balance between the interests of the coastal state and the interests of fishermen off another state's coasts. Some of our ablest and most experienced legal and fisheries experts are working full time in order to reach a solution of this problem along these lines. It is hoped that the exact terms of such a compromise can be formulated as a result of explorations within other governments, if possible prior to the 1960 Conference, as we have learned from the last Conference the import-

⁸ (U.N. Document A/Res/1807 (XIII), December 10, 1958).

ance and advantages of pre-Conference agreement on positions of fundamental importance.

In closing, let me state that such an agreement which will undoubtedly entail some sacrifices deserves the support of all of us since I am certain that a failure to agree on these ques-

tions of the breadth of the territorial sea and fisheries limits at the next Conference will result in extensive unilateral extensions of the territorial sea with very grave political, economic, and military consequences for the free world. I am sure that you all feel as I do, that it is far better to

reach agreement on these two outstanding questions at the next Conference by means of a reasonable accommodation of various conflicting interests than to lose everything to those whose political, economic, and military interests are diametrically and irrevocably opposed to our own.

RAW PRODUCT QUALITY EVALUATION

Influence of Maturity and Ripening on Quality of Freestone Peaches and Pears

By Sherman Leonard,
Food Technology Department,
University of California

The objective of the work on quality evaluation of raw products is designed solely to secure a profit for the food processing industry. A clear understanding of this motivating force does a great deal to reduce misunderstandings that might arise between management and quality control.

The profit is realized through greater yields, control of materials flow into production, and better quality of the canned product. These factors set the pace for our discussion today of the influence of maturity and ripening on the quality of canned freestone peaches and pears.

It is essential to consider the relationship between the factors of quality in the fresh product and the factors of quality in the processed product. Unfortunately, many quality control systems are designed only on the basis of absence of defects and this covers only the bare essentials that are commensurate with good production practices. The factors which have to be considered are variety, size, shape, color, chemical composition (such as soluble solids, total solids, total acid, volatile reducing substances, etc.) texture, fibre content, pectin content, and dessert quality. The relationships between these factors in the raw material and in the finished product can be established using objective measurements.

Some years ago when we started our work on the canning of Bartlett pears in California, an industry survey indicated that pears were a gentleman's crop, since they were harvested green and then shipped to the processing plant to ripen. The farmer felt he had a wide latitude in selecting the harvest date and the inclination was to harvest the fruit at a time that was convenient and when the largest yield per acre could be obtained. This fruit was then shipped to a processor who in order to control materials flow through his own plant either ripened the fruit in the plant

or in the hot sun or placed it into cold storage. Under these conditions, losses from rot and overripe fruit sometimes amounted to 25-35 percent. At times the situation would get out of control and whole lots of fruit would be discarded.

This practice caused great variation in peeling, coring, and dicing losses, and in the grade yield of canned pear halves. Careful surveys indicated that pears were being canned or diced for cocktail from 10-12 pounds on down to 1 pound of pressure test as measured with the Magnus-Taylor pressure tester (5/16" plunger). We found that the canning schedule was determined on a daily basis and was influenced by plant capacity, the number of peaches that were going into the cocktail pack, and the whims and fancies of plant managers. This caused inefficient use of labor and the factors of quality were difficult if not impossible to control. The texture, color, and dessert quality of the finished product was infinitely variable both within lots and between lots. The cooks and syrups were being changed in order to compensate for the wide variation of the raw materials going into the process.

In order to control these factors, we cooperated very closely with Dr. Claypool of the Pomology Department who had worked for a number of years on the ripening of pears for fresh market use. The basic principles which were developed were put to use in preparing pears for canning.

This new procedure involved a great deal of experimental work and I shall not take the time here to describe it. Our aim was to select the proper and uniform maturity of fruit at the point of harvest by using a Magnus-Taylor pressure tester (5/16" plunger). As the fruit matures it develops in size, and when enough fruits have reached the minimum size and a pressure test of from 18-21 pounds, the harvest is begun. The fruit is then delivered to the processor and is placed in cold storage. After storage, the fruit is ripened in a ripening room at 68°F. and 85 percent relative humidity for a period of ap-

proximately 6 days. During this ripening period, a pressure test of the fruit can be measured in order to determine the progress of the ripening procedure. When the fruit has ripened to 2 pounds pressure test, it is at the optimum stage of ripeness for canning. Peeling and coring characteristics of the fruit at this particular moment are at the stage which permits minimum losses, and the dessert quality of the fruit is at its best. As the season progresses, pears at lower pressure test are harvested, such as 17-20 pounds, 15-18 pounds and 14-17 pounds, but at no time do we have 12 and 21 pound pears in the same lot.

This procedure is quite adaptable and lends itself to control since fruits can be stored in cold storage at 31°F. for considerable lengths of time and can be brought out to suit packing schedules and production capacity. Since we have a uniform ripeness and maturity, sorting problems are minimized, peeling and coring problems are minimized, and it is no longer necessary to constantly adjust the process to suit the fruit. In this ripening procedure, by predetermining the packing schedule, it is possible to establish 2 or 3 shifts a day for 6 days a week and to get an extremely efficient use of both labor and machinery. By proper selection of harvest maturities, it is possible to reduce losses from the field to the plant. Canners who have operated under both the uncontrolled and then the controlled system have experienced gains in yield which ranges from 17 to 24 percent. They now have uniform maximum dessert qualities which have had a sharp impact on consumer acceptance of their finished product.

In the canning of freestone peaches, conditions were similar to the canning of pears without control. Under an uncontrolled system of handling freestone peaches, it is difficult to control the drained weight, color, texture, and the dessert quality of the finished product. The fruit is soft and the harvest damage and transportation damage can be excessive. In developing harvest procedures, four stages of harvest maturity were empirically established. These stages of maturity were determined by skin color and pressure test of the fruit utilizing the Magnus-Taylor fruit pressure tester with a 7/16" plunger.

The maturities were as follows:

Green.....	Pressure test 18-24 pounds 10-12 days before tree ripeness
Green Straw.....	Pressure test 13-18 pounds 8-10 days before tree ripeness
Straw.....	Pressure test 7-12 pounds 4-6 days before tree ripeness
Tre Ripeness.....	Pressure test 2-6 pounds

This work was done on both Fay and regular Elberta peaches. After harvest, the fruits were ripened under controlled conditions at 68°F. and 75-85 percent relative humidity for 1, 3, 4, 6, 8, and 10 days. As each of these fruits were ripened, samples were taken and canned to determine the canning characteristics, chemical composition, and factors of quality.

Under a controlled ripening procedure, several very significant factors developed which could be profitably utilized. In the first place, it was found that drained weight in the canned fruits had a very definite relation to the harvest maturity and the ripeness at which the fruit was canned. The tree ripened fruit, for example, handled under controlled

conditions, had a percent retention of 85 percent, whereas the green fruit, when ripened for 8 days, had percent retention of 95 percent.

We also found in freestone peaches, that when uniform maturities were harvested and then ripened under controlled conditions, the grade yield was improved and the finished product was uniform.

Dessert quality of the fruit ripened under controlled conditions was equal to or better than the dessert quality of tree ripened fruit and the color development was good. In fact, in recent experiments where we have been working with different ripening temperatures, namely, 68, 77 and 86°F., we have found some increases in the color and flavor development with the use of higher temperatures.

Although brown rot and Rhizopus problems are not yet solved, case yields and grade yields have been improved by using a controlled harvesting and ripening procedure.

strument for measuring the color of juice extracted from a representative sample of tomatoes.

Pursuant with these findings, research was undertaken by the Department of Agriculture with color measurement of raw tomato juice as the prime objective. Sampling methods were also considered, together with the need for integrating the evaluation of the condition of the tomatoes for defects with the information on color. This research was undertaken by the Department of Agriculture in 1952 and has continued to the present. It has resulted in an evaluation system which is being suggested to replace the present inspection procedure for tomatoes. This system develops two factors of information: (1) The raw juice color index of the load and, (2) the percent usable weight of tomatoes in the load. These two factors can be used to establish the purchase price of the load.

The system operates as follows: A sample of several hampers is taken at random from the load. The basic sampling pattern in this research has been 8 hampers from the average grower's load of about 200 hampers. This number will vary according to the size of the load. In the research procedure used to date, 4 composite hampers have been prepared from the original 8 to form the actual grading sample. However, in the practical procedure, a modified inspection table will be built which will subdivide the sample into several equal portions, only one of which will be graded. This selection will be made by chance.

The inspector then evaluates the sample for condition or defects, (as interpreted in the present U. S. Standards, but excluding color), by classifying the tomatoes into 4 groups: (a) Those requiring less than 5 percent trim, which are essentially good sound fruit which could be expected to pass over a cannery trim belt without being handled, (b) those requiring 6 to 20 percent trim, which are obviously less sound than the first class, (c) those requiring more than 20 percent trim, and which are automatically cull and, (d) a penalty group in which is placed tomatoes having a specified degree of infection with white mold, black mold, anthracnose and similar diseases; up to, but not more than 20 percent of the weight of individual tomatoes in this lot shall be so damaged.

The inspector then trims lot (b) and places the trimmings in the class (c) or cull bin. The inspection tray is then dumped and the tomatoes in the 4 classes weighed separately. Weights of Class A, B, and 80 percent of D (penalty) are then added to comprise the usable weight of tomatoes in the sample. It is to be noted that 80 percent of the weight

Measurement of Tomato Color, Defects, and Internal Quality

By Dr. Arthur P. Sidwell
and John N. Yeatman,
Agricultural Marketing Service

For the past several years, the U. S. Department of Agriculture has been conducting research on development of improved methods for grading tomatoes for processing. This research was begun in response to requests from canners and tomato growers, who have felt that the present method of grading is not as accurate as is desired under modern conditions.

The chief source of complaint has been the interpretation of "good red" color in the grading system. The grade specifications in the U. S. Standards for the Manufacture of Strained Tomato Products define tomatoes having 90 percent of the flesh with good red color as "well-colored" and classify them as U. S. No. 1, provided they also meet requirements for condition or defects. Those tomatoes having at least 66% percent of the flesh with good red color are defined as "fairly well-colored" and classified as U. S. No. 2, again subject to accounting for defects. Cull tomatoes are those which fail to meet the requirements of U. S. No. 1 or U. S. No. 2.

The Raw Products Inspection Service of the U. S. Department of Agriculture, which has the responsibility for grading tomatoes under the U. S. Standards, has taken all reasonable precautions to make these inspections as accurate as possible. These precautions include careful selection of

inspectors, pre-season training at special schools, use of handpainted replicas of tomato cross-sections and frequent visits to inspection locations by competent supervisors. However, the natural, unavoidable shortcomings of such a visual system of evaluating color are numerous and serious. For example: (1) The colors representing the various grades are subject to the memory of the inspectors, (2) fatigue greatly influences the ability of an inspector to distinguish color efficiently, and (3) neither the external nor cross-section colors are accurate indications of the raw juice color. Also, the relationship between external color and internal color of tomatoes is significantly affected by variety and the weather conditions.

Another shortcoming in the grading system is the abrupt change in prices which goes with only three levels of grade: 1, 2, and Cull. This often results in inequitable payment. It has been considered impractical, if not impossible for the inspector to make any further subdivisions on the basis of color.

These and other shortcomings were pointed out in bulletins and reports of three experiment stations (Ohio, New York and New Jersey), which participated with the Department of Agriculture in a cooperative study begun in 1948. These studies reemphasized the importance of tomato color and each of the cooperating groups suggested that the grading procedure could be made more reliable by using a photoelectric color measuring in-

of the penalty or D class is considered in the usable fraction with 20 percent counted nonusable or waste. This disposal may be considered a "dockage" for tomatoes infected with mold or anthracnose to this particular degree. This deduction is related to the disposition of this type of tomato under the present U. S. No. 2 grade. The Department of Agriculture is desirous of discouraging the delivery of tomatoes having significant moldy infection with these diseases and thus advocates the maximum deduction of 20 percent of the weight of tomatoes falling into this penalty group.

Having now determined the weight of usable tomatoes in the sample, the percent usable can be calculated and applied to that load.

Color measurement then follows: Class A (sound tomatoes having less than 5 percent trim) and Class B (trimmed tomatoes) are combined and a good color sample of 40 tomatoes is randomly taken from the lot. This fruit sample is then washed in a running water spray and the raw puree extracted with a table model Enterprise extractor using a .034-inch screen juice attachment. The color of the puree is then measured with a newly developed raw tomato juice colorimeter, to arrive at a raw tomato juice color index, having a range of 40 to 100 and thus providing for a sliding scale of color on which the price of the usable portion of the load can be based. This colorimeter is a newly developed tri-stimulus instrument which computes the color index according to the formula which our research indicates best agreement with inspectors' scorings of raw tomato puree.

Thus, the two factors of grade, color and percent usable weight of tomatoes, are developed from evaluation of the sample. If this system is adopted, an inspection certificate such as this is suggested.

SUGGESTED INSPECTION CERTIFICATE

INSPECTION POINT ... *Pocomoke, Ind.*
CANNER *John Doe Canning Co.*
PRODUCTS INSPECTED ... *Tomatoes*

DATE ... *Aug. 28, 1958* ... HOUR ... *3:00*
GROWER *Thomas Jones*
NO. OF CONTAINERS ... *280*

	Category	Pounds	Percent
<i>H. T. Spencer Inspector</i>	0-5 (A)	79.0	36
	6-20 (B)	6.5	3
	C/Bs (C)	8.0	6
	Penalty (D)	47.0	33
	Total	1,405.5	100

SAMPLE: % Usable (% A + % B + (% D × .80)) *.87*
% Waste (% C + (% D × .20)) *.13*
Color Index *70.7*

GROSS WEIGHT *13,620* LBS. USABLE \$ per ton
TARE *3,800*
NET *9,820*
VALUE OF TOTAL LOAD \$

Influence of Apple Variety, Maturity and Storage on the Quality of Canned Slices

By Dr. Robert C. Wiley
and Arthur H. Thompson,
University of Maryland

The apples received by processors in the Appalachian area vary tremendously on a day-to-day basis in variety, maturity, and type and duration of storage. Each receipt exhibits a unique set of physical and chemical characteristics which have an important effect on the quality of the manufactured slices. This study involved the six most important commercial apple varieties in this area, and was designed to determine certain physical and chemical characteristics of these varieties, their changes during maturation, their responses to storages of different types and durations, pre-tests for segregation in storage or on the yard, yield and trim data, and the effects of these pre-processing factors on canned product quality.

RESULTS

In both growing seasons, York and Golden Delicious were rated as significantly higher than the other varieties in quality of canned slices. York rated slightly higher than Golden Delicious in wholeness and firmness. Color was the outstanding feature of the Golden Delicious, particularly the brightness factor. In many ways these two varieties are close chemically. Trim losses of these two varieties are close although in weight loss Golden Delicious was highest of all varieties, particularly in common storage.

Jonathan ranked next in quality attributes, being good in wholeness and firmness but lower in color and

flavor. Rome and Stayman were consistently rated low in all factors of quality. Northwest Greening in the one season it was processed was significantly lower than the other varieties in all quality attributes.

In storage studies, data showed apples harvested at a pre-optimum stage of maturity made a better processed product if allowed to ripen for about 20 days in common storage and/or 30-60 days in cold storage. Apples harvested at optimum or post-optimum quality levels gave the best quality of processed slices immediately after harvest.

Anhydrogalacturonic acid content of the varieties showed significant differences, with Stayman and Northwest Greening showing the highest amounts. This indicates that a soft variety may have about the same pectin content as a very firm variety. Rome was consistently low in pectic substances but very firm in early harvest and storages.

Wholeness, firmness, color, and flavor as evaluated by panels accounted for about 98 percent of the variation in apple slice over-all scores. Color accounted for about 45 percent wholeness and firmness 50 percent and flavor 5 percent on a weighted basis.

Firmness and wholeness in processed apple slices appear to be more closely related to acid soluble pectins than either total or water soluble pectins. There appear to be differences between varieties, with Stayman, York, and Jonathan exhibiting significant correlations and Rome and Golden Delicious showing low relationships with acid soluble pectins.

The relationships between the Shear-Press values, a textural measurement, on raw slices and the pectic determinations show a similar pattern. To account completely for the firmness and wholeness differences in apple varieties, it is probably necessary to consider pectins, starches, celluloses, hemicelluloses and lignins together in a multiple relationship.

In pre-testing and receiving-testing it is felt that no one quality test by itself used year after year is sufficient to measure quality of the apple but that the use of several tests in combination shows considerable promise. Nomographs developed from multiple regression equations, including measurements of sugars, acids, firmness, color and others, can be developed for varieties or groups of varieties to predict canned slice quality from raw stock. From properly segregated samples in the yard, process control and finished product quality could be completely standardized.

NEW CONTAINERS AND CONTAINER PROBLEMS

PRESIDING: J. E. McCONKIE, California Packing Corp., San Francisco, Calif., member of the N.C.A. Scientific Research Committee

ADDRESS: "The Status of Aluminum Cans for Food"—E. F. EIKE, L. P. GOTTSCH and K. W. BRIGHTON, American Can Company, Barrington, Ill.

ADDRESS: "Tailor-made Containers for Foods"—G. T. PETERSON, Continental Can Company, Inc., Chicago

ADDRESS: "External Corrosion of Canned Foods in Marine Transportation"—RUSSELL C. PHILLIPS and RAYMOND K. COHEN, Stanford Research Institute, Menlo Park, Calif.

The Status of Aluminum for Food Cans

By L. P. Gotsch, E. F. Eike,
and K. W. Brighton,
American Can Company

The interest of this group in aluminum cans is timely. You have all read that, after a number of years of commercial use in Europe, aluminum sardine cans are being tried out on a commercial scale by one American packer. You have also read of the cemented oil cans made from aluminum being used by a major oil company on the eastern seaboard. You have seen news accounts of aluminum beer cans being made in Hawaii and Colorado and the advance publicity on a grated cheese container. Aluminum cans have arrived, and there is general agreement that they will find a variety of applications where the properties of the metal may be used for advantage. The question in which you are all rightfully interested is whether aluminum cans will be used ultimately for the large volume food items which are of interest to most members of the National Canners Association.

The technical interest in aluminum by our Company over the past 30 years, and the quickened interest in

the last several years, has stemmed from the economic possibility that aluminum would sometime compete price-wise with tin plate for the rigid container market. The reasons why this possibility is attractive to the can-maker are several. The most important is that it would provide us with a second major can making metal.

To understand why we are willing to commit increasingly greater research funds on the gamble that the price of aluminum will be reduced enough to make aluminum cans competitive with tin plate cans, it is necessary to examine some of the recent developments in the economics of aluminum.

ALUMINUM PRODUCTION AND PRICING

Aluminum is one of the great success stories of our times. As Figure 1 shows, production of primary aluminum rose steadily until World War II and then skyrocketed.

When the President's Materials Policy Commission report⁽¹⁾ was prepared in 1950, the forecast was made that by 1975 primary production of aluminum would be 3,600,000 short tons. Projections by the aluminum industry have even been as op-

timistic as a consumption of 10,000,000 tons by 1975.⁽²⁾

However, in the last few years actual production has leveled out while capacity to produce has continued to move ahead. In 1958, primary production of aluminum was estimated at 1,553,000 tons⁽³⁾ as compared with 1,648,000 tons in 1957 and 1,679,000 tons in 1956. In the first nine months of 1958 some 292,000 tons were delivered to the Government stockpile.⁽⁴⁾ So something less than 1,300,000 tons of primary metal entered into the industrial market in 1958.

Meanwhile production capacity has increased substantially. It was up 15 percent in 1958 and in 1959 is expected to total 2,600,000 short tons.⁽⁵⁾ Hence capacity in 1959 will be about twice the amount of primary aluminum delivered into the industrial market in 1958.

Since 1947, when aluminum and steel were price decontrolled, the price of aluminum pig has risen at about the same rate as the price of tin plate, as shown in Figure 2. However, faced with such a glut of the metal, aluminum producers have recently taken a long look at the can market which currently utilizes about 5 million tons of steel. By projecting a change in their method of operating, from that of a job shop to sustained

FIGURE 1

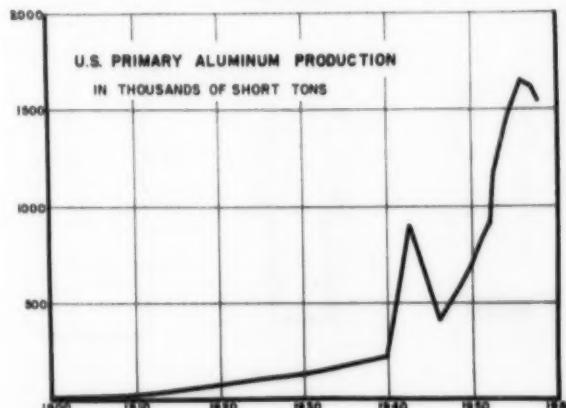
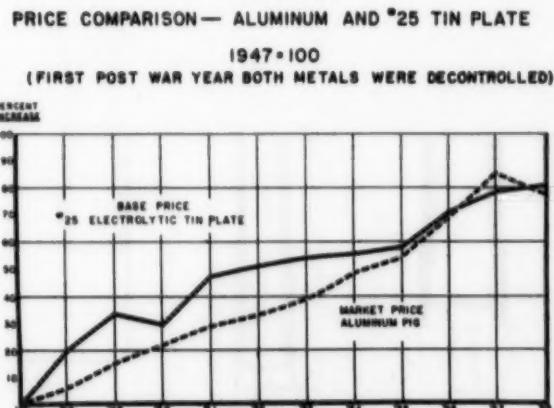


FIGURE 2



production runs of plate of one specification, the producers of aluminum have been able to establish a can stock commodity price tied to large volume usage which offers substantial price reductions. For example, the price of .010" thick 5052 alloy, which is one of the alloys suitable for can making, has been reduced from 56.8 cents a pound to 32.0 cents. One of the aluminum producers has also been able to make a special arrangement by which 60 million motor oil cans were supplied at the same price as tin plate cans. And other economic breakthroughs have been promised.⁽⁶⁾

What these figures mean in terms which we can all understand in relation to the price of processed food cans is portrayed in Figure 3. When the different price structures are converted to a common area basis to allow direct comparison of one metal with another, the decrease in the economic disadvantage of aluminum due to this commodity price is evident. The trend encourages optimistic forecasts that there can be still further reduction which would insure a future for aluminum as a can making material.

FIGURE 3

Base Price of Can Making Stock for 30" wide Coils of .010" Gauge		
	cents/pound	dollars/base box
#25 Tin Plate.....	9.1	8.15
5052 Alloy, Job Shop Price.....	56.8	17.43
Commodity Price.....	32.0	9.82

As we shall soon see, two of the possible methods for making aluminum cans are not based upon light gauge sheets as a starting material, but rather start out with heavy gauge discs or rings. However the over-all economic picture in these cases is essentially the same even though it cannot be drawn as a simple comparison

of similar starting materials as is possible with light gauge sheets.

The pricing relationship between slugs and sheets will determine which type of aluminum can making process will be used in preference to another. It is therefore necessary to review the various ways by which aluminum cans may be manufactured, and to consider the performance properties of such cans.

TYPES OF HERMETIC ALUMINUM CONTAINERS

It is not very likely that the side-seams of aluminum cans will be soldered. A great deal of research has been done, but the technical difficulties to be overcome are so great that other container constructions appear more attractive for exploitation. The probability is good that future technology will result in cemented side-seam containers suitable for vacuum holding and pressure sterilization. It is likewise probable that sideseam welding techniques, either electrical or ultrasonic, will be engineered to practicality. For the moment, however, most attention is being focused on four other can making methods, three of which have never been used previously in this country for the production of cans for the large volume processed food items.

Recent publicity in connection with aluminum containers has employed new or unfamiliar terms such as impact extrusion, drawing and ironing. Food packers will be interested in a thumbnail sketch of what these processes are and what the dimensional characteristics of the containers made thereby will be.

DRAWN CANS

The only aluminum containers in commercial use in the United States for sterilized food products are shallow drawn cans for sardines. This process has also been the most eco-

nomic for making tin plate containers of the same shape. It is generally applicable to containers which are no more than half as tall as they are in diameter. Such a can is shown schematically at the left in Figure 4. If one requires a taller can, this shallow cup must be drawn a second time (redrawn). Because this second operation obtains the additional height by taking metal away from the bottom, a decrease in diameter is necessary and this diameter change requires that two separate dies be used. This multiple operation requirement is an important reason why drawing is not considered the most practical method for making cans of large height diameter ratios. However, one economic advantage of the drawing process over the others to be discussed is that stock which has been pre-enamelled in the flat may be used as is done with tin plate containers today. As shown in the schematic cross section on the right, containers made by this process have both bottom and side walls of equal gauge essentially the same as the initial gauge of the plate used.

REVERSE IMPACT EXTRUSION

The process of reverse impact extrusion shown in Figure 5 is probably the most familiar to this audience. It is the process by which collapsible tubes for toothpaste have been made for many decades from tin and lead and, in more recent years, from aluminum. A slug of metal is contained in a shallow die cavity where, under pressure from the descending punch, it is forced up along the punch wall. The annular clearance between the die and punch determines the thickness of the side wall of the finished shell. A characteristic of these containers, which have no sideseam or bottom doubleseam, is that the bottom is heavier than the side wall, and the dimensions shown in schematic cross section are typical of

FIGURE 4

DRAW AND REDRAW

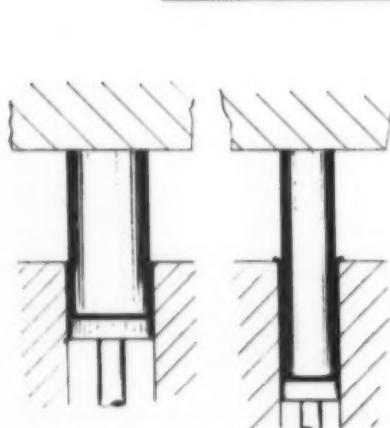
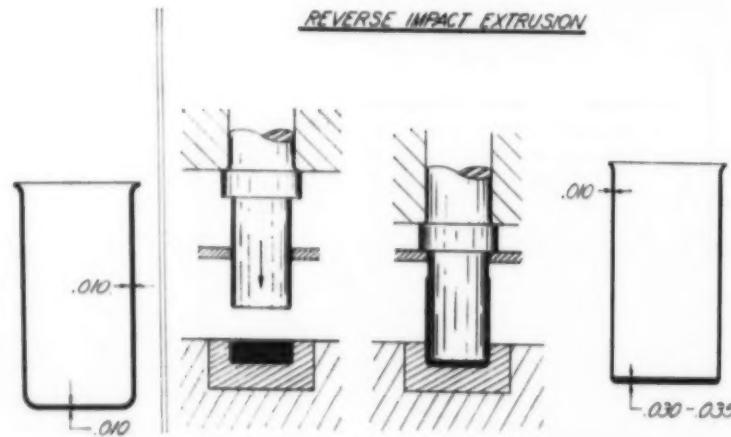


FIGURE 5

REVERSE IMPACT EXTRUSION



those one might expect to use for a container of the 303 x 406 or similar size and shape as made today. Future engineering probably will be successful in reducing the excess of metal left in the bottom. The height to which these seamless shells may be formed by this process is limited only by the length of stroke available for the punch. There is a practical limitation, however, due primarily to the fact that long stroke presses are slower than desirable for a unit which produces only one can per operation. Current engineering activities are being aimed at improving production speeds by increasing the number of strokes per minute and by using multiple dies. Reverse impact extruded cans have been used rather extensively in Europe for beer, pressurized products, and even premium containers for pharmaceuticals, powdered coffee, etc. The small diameter aluminum cans being used for pressure propelled products in this country are reverse impact extruded as are the beer cans being made in Hawaii. Ultimately larger diameters will be produced and some pressurized food products of interest to this audience may also be packed in these cans.

FORWARD EXTRUSION

The limitation of height imposed by the length of stroke can be circumvented by impact extruding forward rather than in reverse. This is shown in Figure 6 where the initial slug is in the shape of a heavy ring. As the punch descends, its nose enters the die and forms the annular orifice through which a long tube of aluminum is forced out through the bottomless die. For can making purposes this tube could be long enough to cut into several can bodies. As is shown in the schematic container cross section, this would result in a can body which has no sideseam, to which two conventional type ends would be

seamed to form a three-piece container.

DRAWING AND IRONING

The last method which has been much publicized and discussed as a potential aluminum can making process is drawing and ironing, as shown in Figure 7. This process begins by making a simple shallow drawn shell, but the die is bottomless and the punch continues downward to push this cup through a ring slightly smaller in diameter than the cupping die cavity above. This thins the side wall and forces the metal upward, thereby increasing the height of the can. Additional ironing operations may be added to achieve whatever body wall thickness and height is desired. Again limitations are imposed by the practical length of stroke available. The shell with no sideseam or bottom seam is similar in cross section to those made by reverse extrusion in that the bottom is heavier than the side wall. The bottom has the initial gauge of the sheet metal used. The thickness of the side wall is determined by the difference in diameters of the final ironing ring and the initial cupping die.

Neither extruded nor drawn and ironed containers can be made from pre-enamelled or lithographed stock. The cans must be heavily oiled during the forming operations and will need to be thoroughly degreased prior to inside spray enameling and before any outside lithography can be applied. This means, of course, a change not only in the basic can making method, but in all of the supplementary operations required to finish the container suitable for the food packer's use.

STRENGTH OF ALUMINUM CANS

One of the principal questions asked by food packers is whether aluminum cans will be strong enough to withstand all of the handling and mechanical stresses imposed upon containers during packaging and distribution. In an earlier paper, (7) we have shown that to provide the same paneling resistance and buckling resistance as tin plate containers, the gauge of aluminum containers must be increased by 35 percent even when the high strength alloys are used. The typical data cited at that time are reviewed in Figures 8 and 9.

The extent to which heavier gauges will be required probably holds the key as to whether aluminum will be used in the near future for the large volume processed vegetable and fruit products which are of interest to members of this Association. In Figure 3 it was shown that the price of aluminum sheet has been reduced to the point where it approaches tin plate on a gauge for gauge basis. We think this means that aluminum will find its first use in cans for those products where thermal process is not required and aluminum can replace tin plate of the same gauge. From a practical standpoint it seems likely that there must be a further price decrease before aluminum will be used extensively for cans which must have considerable resistance to paneling, buckling and mechanical abuse.

OPERATIONAL CHANGES IN CANNING PLANTS

Realizing that heavier gauges of aluminum are required to provide cans which are as rugged as tin plate cans, the aluminum producers have asked whether packers' operations could not be changed to accommodate less rugged cans. Commercial experience with the aluminum quart motor oil cans has shown that few changes have been required in empty can handling. Presumably the lighter weight compensates for its lower strength and abnormal damage is not encountered. With filled cans, how-

FIGURE 6

FORWARD IMPACT EXTRUSION

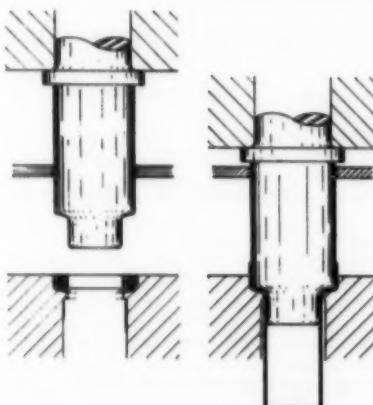
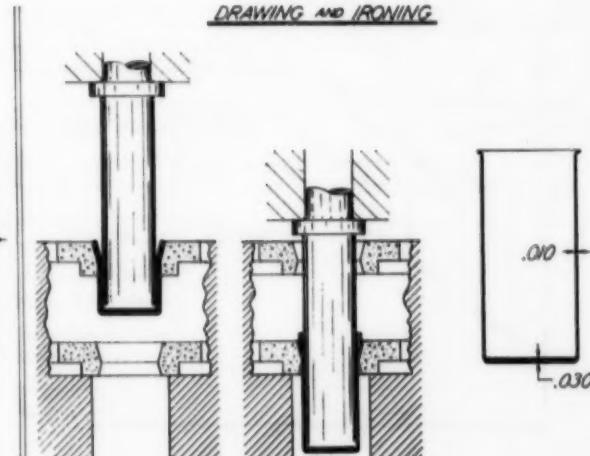


FIGURE 7

DRAWING AND IRONING



ever, the difference in weight in the cans themselves becomes small in comparison to the total weight, and the situation is quite different.

The tin plate container has been engineered to meet the requirements for modern commercial high speed canning operations with the minimum practical gauge of plate. Many economies in plant handling have been achieved by sacrificing perfect container condition. Small but tolerable amounts of denting are now found from operations such as crate filling, crate dumping, chute drops, star wheels, unscrambling devices, bar flight elevators, etc. It can be assumed that any change to weaker cans would result in even more damage unless rough handling is reduced by lower speeds, equipment modifications, and more manual operations. It is difficult to estimate what the effect of such changes upon production costs might be, but definite increases would be expected.

For some foods in smaller can sizes modifications of the canning procedure could be made which would permit the use of less rugged cans than are currently employed. As an example, pressure cooling might be used to avoid the buckling or straining of the ends. However, if bodies will have less paneling resistance too, there must be a delicate balance between the pressure required to maintain flat ends and that which would cause paneling of bodies as the cans are cooled. For some products superimposed pressure during the entire sterilizing process might be required.

Separate and apart from the operational changes required to accommodate weaker cans, possible changes are foreseeable if two-piece rather than three-piece cans are used, regardless of strength. Equipment which conveys or otherwise handles cans by rolling them on their sides will prob-

ably have to be modified to compensate for the absence of a double seam on one end. Can runways, spinner cookers and spinner coolers may be cited as examples.

Absence of a bottom seam would also require control of the orientation of the cans during labeling and casing. Can unscramblers would have to be modified or other equipment used to deliver all cans to the labeler top end up in relation to the label.

These operational matters and possibly others must be considered in the future if aluminum becomes competitive with tin plate for the processed food packs. And only the actual packing of sizable numbers of cans, plant by plant, will establish the extent of changes which must be made.

USEFUL SHELF LIFE PERFORMANCE

Another important question asked by packers about aluminum containers is "How will it hold my product?" It is one thing to discuss the practicability of aluminum cans in terms of their initial cost and to forecast what would need to be changed in a packer's operations in order to accommodate them. These are matters of economics and engineering and the picture can and has been changing rapidly. It is another thing, however, to consider the question of how well this aluminum package will hold the product during its required storage life. This latter instance revolves around the inherent corrosion resistance of the container and the chemical activity of the product, matters which cannot always be altered by simple engineering nor accomplished at tolerable increase in costs.

In Europe, the economics of using aluminum food cans has been more favorable in the postwar period than here, and a considerable amount of both experimental and commercial experience has been accumulated.

Based on this experience, there is little question but that the user of aluminum cans will have to plan on a substantially shorter shelf life for food products generally. In many instances this lower shelf life will not be important but for some it will be less than is considered the minimum requirement today for tin plate containers in this country.

The literature on European experience and experimental work is extensive, and the writings of Adam(8) and Taranger(9) may be considered typical. From these reports one must conclude the following:

- (1) Almost without exception, processed foods will require inside enameling in order to obtain a shelf life acceptable under any circumstance.

- (2) When the pH is 5.0 or above, simple enameling will result in a shelf life of two to three years at room temperature storage in most cases before hydrogen springers occur. However, some products in this range will have less storage life expectancy than this.

- (3) For the more acid products such as fruits, the room temperature shelf life ranges from 12 to 18 months. Even this requires using the maximum protection available from known methods of anodizing, chemical treatment, enameling or combinations thereof.

- (4) In general there is little difference in color and flavor between canned foods packed in aluminum cans properly protected against interior corrosion and the same foods packed in conventional tin plate containers. For meats and some sulfur bearing vegetables the problem of interior sulfur staining of the container and, in some instances the product, does not exist with aluminum. On the other hand, the tendency for aluminum to bleach some of the highly pigmented products is substantially greater. These findings are essentially corroborated for American product and

FIGURE 8

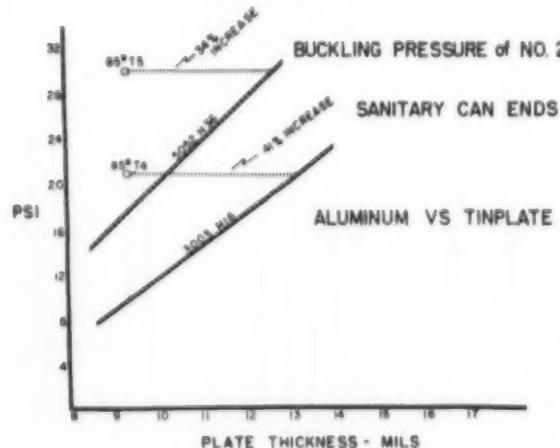
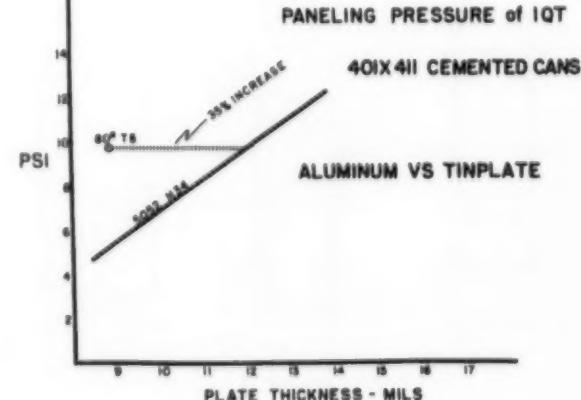


FIGURE 9



packing methods by the results of the many experimental packs made by the American Can Company laboratories. This work extends back over the past three decades and has been the subject of very extensive investigation during the last several years.

To some of you this generally inferior corrosion resistance of aluminum as compared to tin plate may seem incongruous in the face of the general belief that aluminum is a metal of superior corrosion resistance. This belief is based for the most part on its resistance to corrosion under atmospheric conditions. Aluminum structures owe their corrosion resistance, not to the stability of the metal itself, but to the skin of aluminum oxide on its surface. This oxide is not only chemically inert but rapidly repairs itself if removed or damaged as long as there is oxygen available to reform the film.

Inside the modern food can, however, oxygen is present in limited quantities and with no opportunity for replenishment. Perhaps it is an oversimplified picture, but one can ascribe the lower resistance to corrosion in the aluminum food container to the fact that there is no oxygen present to keep a resistant oxide film in repair after the initial corrosion breakthrough at disturbed areas or inherent defects in the film itself.

ALLOY COMPOSITION VERSUS SHELF LIFE

The bulk of the data on which the foregoing shelf life observations are based were obtained with 1100 alloy (commercially pure) and 3003 alloy (the one commonly used for cooking utensils). Both of these have been considered the most resistant of the commercial alloys to corrosion by food products, but they are both low in strength. When stronger alloys are being considered as one means for lessening the economic disadvantage of aluminum, it is essential that evaluations include the corrosion effects. The canning industry is already familiar with the fact that rephosphorization of steel to increase its strength is accomplished at considerable sacrifice of corrosion performance and cannot be applied in the case of a large number of the more corrosive products. A similar sacrifice in corrosion resistance is made when additional strength of aluminum is sought through the use of the conventional magnesium bearing alloys.

In 1958, some early results from recent test packs to assess the effect of added magnesium were reported. (7) An additional year's storage of these packs in two-piece drawn 307 x 112 containers has about completed the story and a few typical examples will be discussed.

Two acid foods, tomato juice and pears, are shown in Figure 10. After

16 months' storage at 70° F., the pronounced effect of increasing the magnesium content of the alloy on reducing service life is well defined. The two plates which contain no added magnesium have lost some vacuum but have not reached the hydrogen springer failure point, whereas those containers made with magnesium bearing alloys have already failed. All containers for the lots shown were enamel-lined. Unenameled cans made from all of the alloys and stored at 70° F. failed in 5 months with tomato juice and 2 months with pears. Both products were badly off flavor due to this corrosion.

As typical of the low acid foods, the data for corned beef hash are shown in Figure 11. Here, data from storage at 98° F. is also included to illustrate the low level of corrosion which has taken place. It is probable that an adequate shelf life will be realized even with the high magnesium alloys. However, even such non-corrosive foods must be packed in inside enameled cans, as is evident from the lots of containers which were not enameled or given any special treatment on the inside.

The least corrosive of all the products included in this recent pack appears to be asparagus. The data in Figure 12 show clearly that even for this vegetable inside enameling will be necessary.

ORGANOLEPTIC EFFECTS

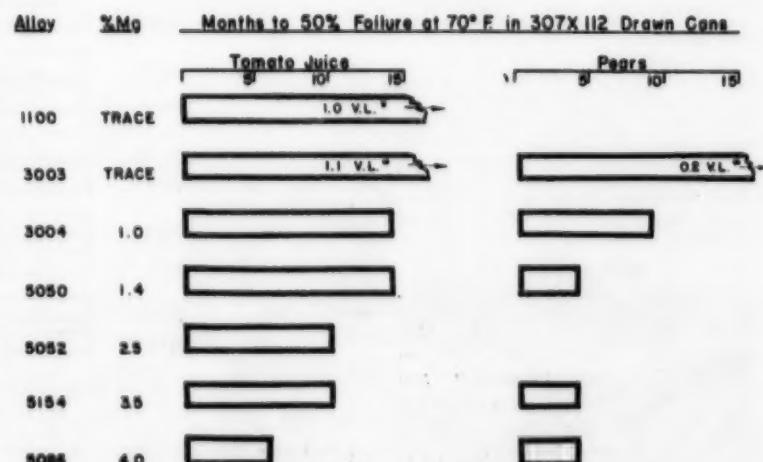
As far as the ultimate consumer is concerned the color, flavor and texture

of the product as it comes from the container in her kitchen will be the most important criterion upon which she will base her acceptance or desire for aluminum containers. For the most part she will find no perceivable difference, but in this area there are a few pluses as well as minuses for aluminum.

Our own experiments have given results similar to those reported from Europe as cited earlier. Aluminum containers in which sulfur bearing vegetables or products containing meats have been packed do not show any discoloration under enamel after storage. This is an aesthetic advantage over tin plate containers. Also eliminated is the occasional but somewhat more grievous problem with certain products where black iron sulfide can form in localized areas of the tin plate container and in some instances appear on the product itself. This problem has been encountered most usually in sea food packs, such as tuna and shrimp. For tuna the use of aluminum containers would appear to be a happy solution, but with shrimp the benefits are exchanged for two considerably worse effects. The pinkish cast and color bands are bleached completely to turn the shrimp muddy gray and a very strong hydrogen sulfide-like odor is developed.

Aluminum containers tend to bleach the highly pigmented products to a greater extent than tin plate. For the darker fruits this may be a disadvantage unless organic coating systems are developed which are excep-

FIGURE 10
EFFECT OF MAGNESIUM CONTENT
ON CORROSION OF ALUMINUM BY ACID FOODS



^{*}Vacuum loss expressed as milliliters of can volume increase.

tionally effective in blocking all contact with the metal. The problem may be more serious with products such as peaches, pears and pineapple which now require packing in unenamed tin plate bodies to prevent their darkening. Unenameled aluminum cannot be used because of the corrosion hazard, and the use of a fully enameled container results in a dark discolored product.

As matters now stand, only the broad general problems can be described, and each product will have to be packed and judged in its own specific climate. Asparagus is a good example where an advantage can be traded for a disadvantage. The hazard of iron tannate discoloration on exposure to air is absent with aluminum cans but the green color is bleached perceptibly.

Except in the case of shrimp mentioned before, flavor and odor differences were not generally found. In the cases of severe corrosion during extended storage, however, off-flavors sometimes judged as "astrigent" or "bitter" were observed. Presumably this is due to the increased metallic content.

CONCLUSION

As we sum up the status of aluminum for food cans, we find that aluminum cans are being used in the United States today for a few products. They will be used increasingly for other products where the metal provides some special advantage, primarily replacing tin plate on a gauge for gauge basis.

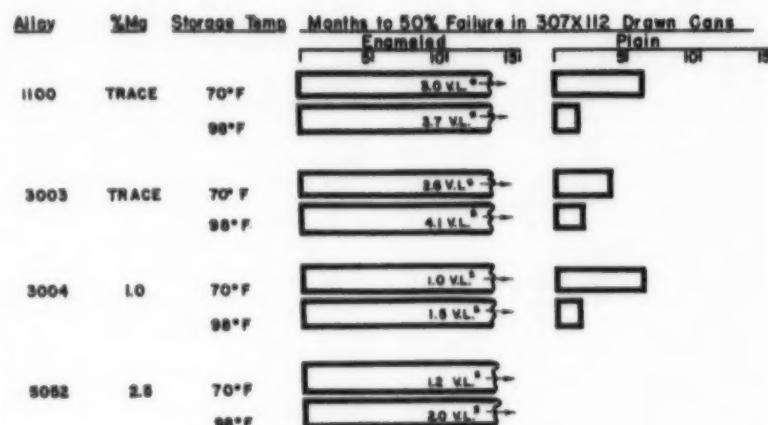
The use of aluminum cans for the large volume processed products seems farther in the future, since here paneling and buckling as well as denting resistance require the use of heavier gauges of aluminum. To supply and use containers for such products would require major equipment changes by can manufacturers and food packers.

Can manufacturers are anxious to have an alternate for tin plate and are leaving no stone unturned to develop all of the facts about aluminum. However, the key to whether or not aluminum will ultimately be used for vegetables, meats, fruits and other processed items of interest to you is the future price actions of the aluminum producers.

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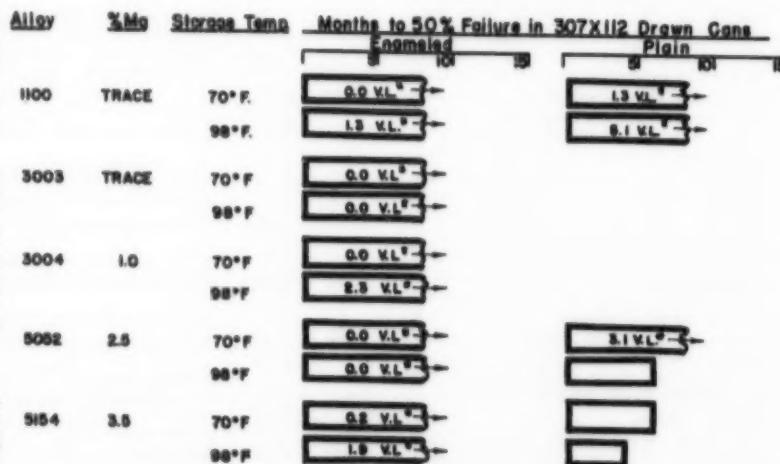
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FIGURE 11
EFFECT OF MAGNESIUM CONTENT
ON CORROSION OF ALUMINUM BY CORNED BEEF HASH



^aVacuum loss expressed as milliliters of can volume increase.

FIGURE 12
EFFECT OF MAGNESIUM CONTENT
ON CORROSION OF ALUMINUM BY ASPARAGUS



^aVacuum loss expressed as milliliters of can volume increase.

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Tailor-Made Containers for Food

By Gordon T. Peterson
and Anna May Schenck,
Continental Can Company, Inc.

At no time in the history of the food industry has the concept of tailor-made packaging received wider attention than at present. Application of the principle has enabled rigid container manufacturers (glass and metal) to keep ahead of potentially competitive new materials such as plastic films and paper laminates, providing tailor-made containers for an infinite variety of exacting product requirements. This is exemplified by the more than one thousand different food items packaged commercially in metal and glass containers and offered for sale at a price within reach of nearly every consumer. Despite this outstanding accomplishment, the industry today faces an even greater challenge: adequately feeding a rapidly increasing population (8 babies per minute); or, supplying packaged foods for an estimated 44 million more customers by 1975!

In order to get a broad perspective of the potentials of this market, let us consider briefly the packaging industry as a whole (Figure 1). In 1957, it shipped nearly \$10 billion of products; almost doubling the 1947 figure, and quadrupling 1939 sales. The shaded area shows the portion of the totals used by the food industry: approximately 40 percent of the total for paper; 63 percent of metal; 66 percent of glass; and 64 percent of flexible materials.

Inflation and population increases account for a part of this phenomenal

growth, but rising incomes, changes in living habits, the desire for more convenience and abundance of better quality products the year round, have also affected this growth pattern.

Some of the more prominent economic, marketing and technological factors influencing the package are summarized in Figure 2. Granted, in applying the over-all concept of tailor-made packaging, it is difficult to divorce these factors from one another because of the interrelationship and combined effects on the ultimate package. However, this discussion will be confined primarily to the technological aspects of tailoring the container to the requirements of the products for which they are intended. Economic and marketing factors will be covered only when they impose restrictions which necessitate special tailoring of the package for optimum performance.

DEVELOPING A SATISFACTORY TAILOR-MADE PACKAGE

Factors to be considered in developing a tailor-made package include:

- (1) Establishment of realistic packaging requirements for the product;
- (2) Evaluation and selection of the most advantageous packaging materials and medium;

- (3) Container design and development;
- (4) Evaluations of product and container both in the laboratory and through market tests; and finally

- (5) Commercialization.

The terminology may vary among laboratories, but there should be no major disagreement with these basic ideas.

ESTABLISHING OF REALISTIC PACKAGING REQUIREMENTS

Development of a satisfactory tailor-made package depends upon arriving at accurate, realistic, and understandable packaging requirements. A proper balance must be achieved among the following influential factors:

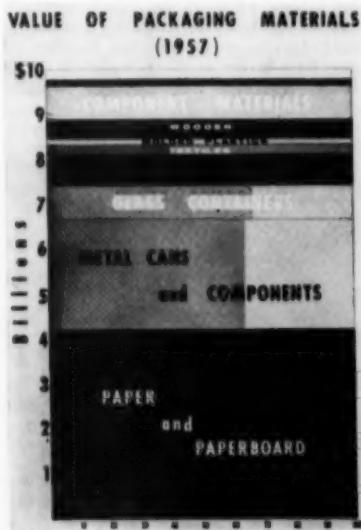
- (1) Chemical and physical characteristics of the product that must be maintained or that impose restrictions on the packaging medium;
- (2) Cannery operations—conveying, filling, processing requirements, labeling, casing, etc. as well as receipt and handling of empty containers;
- (3) Storage—both length of time and conditions;
- (4) Merchandising—transportation and distribution methods as well as type of sales outlet, display methods, etc.; and
- (5) Conditions of use—easy opening, reclosing, dispensing, etc.

Over- or under-packaging are as equally undesirable as specifying a

FIGURE II



FIGURE I



container shelf-life of two years when the product is normally merchandised and used within a few months' time. Establishing realistic packaging requirements will enable the container manufacturer to tailor-make a package with optimum performance characteristics and as economically as feasible.

PACKAGING MATERIALS

Of the various types of packaging materials used by the food industry, at present metal and glass far exceed all others in use for the packaging of processed foods. Each material has certain inherent physical and chemical properties which makes it particularly suited for certain products and packaging functions. Since the attributes of metal and glass as packaging media are well known to you, they will not be repeated here. The attributes of other packaging media may not be as well known and bear watching. Technological developments and advancements in paper, plastics, laminates, etc. are being made at an accelerated pace, making many of the forms of these materials competitive for the processed food market.

CONTAINER DESIGN AND DEVELOPMENT

Metal and glass container manufacturers excel in this stage of the tailor-made package development process. Most of the major manufacturers have large, well-equipped research and development laboratories staffed by scientists and engineers who by virtue of their education, training and experience are experts in designing and developing containers as well as in the ways to manufacture them economically and efficiently. These experts accept the responsibility for seeing that the final package specifications insure technical adequacy as well as achieving proper balance with respect to all influential elements.

PRODUCT-CONTAINER EVALUATIONS

After tentative package specifications have been developed, an elaborate evaluation program must be inaugurated. Laboratory evaluations of representative pack tests to determine product-container performance and/or the technical adequacy of the new package generally precede market tests for determining consumer acceptance. While the container manufacturer is better equipped to perform the former, the packer and/or marketing research organization excel in the latter evaluation.

COMMERCIALIZATION

Commercialization of the new package may be considered the last step in the tailor-made packaging process. From a technological standpoint, this step is not concluded when it has been demonstrated that the new package meets all technical requirements, can be manufactured economically and efficiently, and handled satisfactorily through all subsequent channels: packing operations, storage, transportation, distribution, and merchandising. The right package not only produces the initial sale, it must also assist the product to give the consumer complete satisfaction and thereby encourage repeat sales. Thus commercialization really ends when there is satisfactory container-product performance in the consumer's kitchen.

A commercially effective package cannot be designed to give 100 per cent performance and protection against all hazards. Thus the key to successful commercialization is to achieve a balance among all factors that results in the most satisfactory performance at the lowest cost.

TECHNOLOGICAL PROGRESS

During the past quarter century, there have been tremendous changes in both metal and glass containers. Yet many view the "tin" can or glass jar as the same common, ordinary food packages they were 50 years ago.

Nothing could be farther from the truth. Technological progress in materials and designs have improved quality, functionality and performance and have met the challenge for more convenience and eye appeal. Improvements in manufacturing methods have kept costs from skyrocketing, despite rising costs in labor and materials. For example, for the 10-year period 1947-1956, metal container price increases averaged 5.5 percent per year; wages in the metal container industry for the same period increased 8.3 percent per year and materials costs 7.0 percent per year. For the same 10-year period, glass container price increases averaged 3.9 percent per year, wages increased 6.5 percent per year, and materials costs 3.9 percent per year, according to the U. S. Department of Commerce.

This consistent pattern of lower percentage price increases as compared with labor and materials increases can be attributed primarily to technological improvements in materials application, manufacturing equipment and production methods, as well as improved operating efficiency.

It might be well to review some of the technological achievements of the past 20 years that have enabled container manufacturers to up-grade the quality of their products and at the same time to maintain this important price structure. And more important, to review what the effects will be on future trends and developments.

METAL CONTAINER DEVELOPMENTS

METAL PLATE

Electrolytic tinplate was introduced in the 1940's as a tin conservation measure over the hot dipped method and in less than 20 years has replaced it for practically all food applications (Figure 3). Differentially-coated electrolytic tinplate, a more recent development, enabled further reductions in tin coating weights. Since 1940, average tin coating weights

FIGURE III

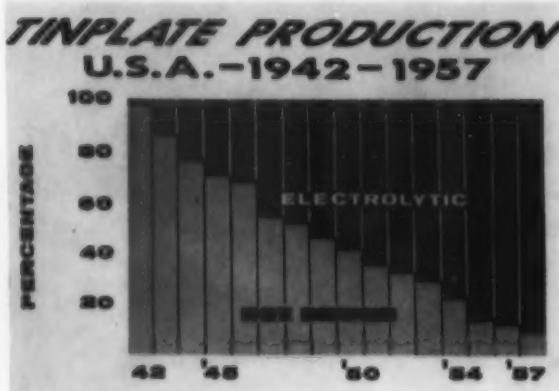
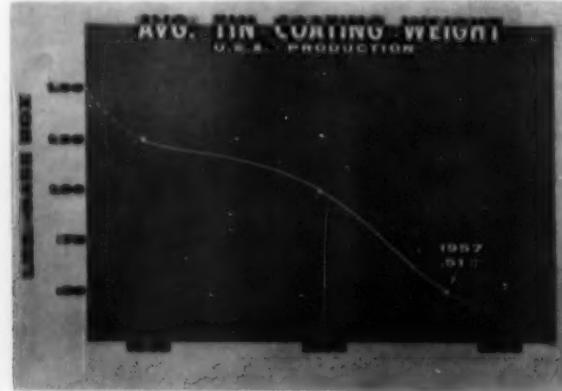


FIGURE IV



have been reduced by almost two-thirds, as illustrated in Figure 4, and at some future date may be eliminated entirely. Technical knowledge is available for making suitable black-plate containers for most products; however, economic factors make it more practical to continue using tin-plate, as long as supplies are available.

Plate weight reductions in recent years have been made possible by improved container designs and structures which will perform satisfactorily not only during manufacture but equally as satisfactory as heavier plate specification containers without necessitating changes in the canner's handling or processing practices. Utilization of plate approximately half the weight of current supplies is a future possibility. The steel mills have recently demonstrated the ability to produce sample quantities of plates 25 to 35 percent lighter than current commercial supplies. Based on previous performance, there is every reason to believe that the intensive investigations of canmakers will be productive in developing container structures, manufacturing methods and equipment to utilize these materials without affecting the commercial acceptability of their products. The cooperative efforts of packers in establishing more realistic packaging requirements will also enable further plate weight reductions to be effected and will help to maintain the competitive price relationship of metal containers mentioned earlier.

Although aluminum is being covered in another paper, as a light weight metal it should be mentioned here as it offers exciting possibilities for many processed food applications. In 1958, aluminum cans for beer, grated cheese, sardines, motor oil, and an aluminum purse-sized aerosol were supplied commercially to U.S.A. markets. Their performance and consumer acceptability are being watched closely. The economic picture, previously considered a serious drawback to aluminum's competitiveness, improved somewhat with a decline in price of the raw material in 1958. Canners can be assured that full advantage will be taken of aluminum's special qualities in line with what the economic picture has to offer to better package specific processed foods.

ORGANIC PROTECTIVE COATINGS

Prior to 1941, can enamels comprised baked varnishes prepared from Chinawood oil and natural resins. World War II gave impetus to intensive investigations to develop or formulate internal and external protective coatings utilizing domestic drying oils and synthetic resins. The past 18 years have been extremely productive as regards technological advancements both in the development of new materials as well as in

application methods, resulting in improved lining performance. The use of synthetics permits "tailoring" or formulating these materials to meet specific product requirements—achieving superior container performance and in many instances allowing products to be packed successfully in cans for the first time.

Through improved organic protective coating materials with increased functionality and performance latitude, consistently high quality can manufacture is readily attainable. Superior protective coating materials are giving maximum performance despite lowering of film weight, and are enabling can manufacturers to effect further economies for the packer. Future advances in high polymer chemistry will no doubt effect further improvements in application and curing methods with resultant improvements in performance characteristics of the packed container.

SEALING MATERIALS

These materials are generally classified as organic (end seam compounds and side seam cements) and inorganic (solders). Improved end seam compounds with greater product resistance and performance latitude, as well as improved application methods have enabled reductions in film volume to be effected without sacrificing container performance. High strength cement developments have already enabled the use of cemented side seams cans with wrap-around lithography for a host of frozen concentrates and it is reasonable to believe that the near future will witness the development of a material that will withstand thermal processing temperatures.

A new method for inside soldering cans was recently introduced commercially on a nonfood can line, and may soon have an important application for decorative food cans that require the ultimate in eye appeal as well as performance. Wrap-around lithography is feasible as the soldering operation is of such short duration that the lithography is not discolored.

CANISTER STRUCTURES

Although the open top can may often look pretty much the same as it did 20 years ago, significant advances in structural design have been made. Great emphasis has been placed on circumferential beading to increase bodywall strength and paneling resistance as well as to improve abuse resistance to permit use of lighter base weight plate. In the past, beading was based on experience and was largely a trial and error proposition. A mathematical approach and analysis of factors and forces involved has resulted in beaded can designs that give real confidence of optimum structure and placement for a desired end use. Circumferential beading also serves another important purpose in

improving key-opening can structures by providing positive tracking of the grip strip.

Side seam structures have come a long way from the soldered lap seam can. In many instances, the full lock-and-lap seam has been replaced by an interrupted lock-and-lap configuration to withstand high internal pressures required by such products as carbonated soft drinks. Similar changes have been effected in end unit designs to permit the use of lighter base weight plates, without sacrificing any of the performance characteristics of the heavier metals.

FUNCTIONAL DESIGNS

The metal can has always been a convenient and practical means for packaging food. As the desire by the housewife for more convenience has grown, there has been a continuing demand for increased functionality in packaging. The imaginative skills of the package designer are being taxed to the utmost to satisfy these consumer wants. Words like "no drip pouring," "easy opening," "positive reclosure," "pressure dispensing," "self stacking," and "overcaps" are but a few of the convenience features that are by-words in the packaging industry today. Consumers want convenience and are willing to pay for it. Therefore functional designs of packages become increasing important. This emphasis on increased functionality and convenience has aided the development of new food containers and components as well as the combination of one or more packaging materials with metal to achieve a tailor-made container for specific production requirements and/or markets.

The foremost example of this is the development of pressure-dispensed foods, more commonly known as "food aerosols." So much attention is being accorded this development, that it has great promise of being the phenomenal growth story in the packaging field in the coming decade. In 1957, \$70.4 million worth of aerosol packages were sold as compared with \$43.4 million in 1955: \$8.0 million for foods for 1957 as compared with \$5.0 million in 1955; and \$62.4 million for nonfoods for 1957 as compared with \$38.4 million. This two-year growth is a phenomenal record in itself.

The commercial growth of a product in a pressure-dispensing can depends largely upon whether the item brings a new and useful product to the consumer, improves an existing product, or performs a service not otherwise available. This additional service might be in the form of more efficient product use, convenience in application, increased product quality, or production of a product in a form that cannot be attained by other means.

Pressurized food containers can be considered the packaging engineer's dream—or nightmare—as the case

may be, since they must be designed to withstand high pressures as well as have special product dispensing characteristics. In addition, they must provide adequate protection for the product and perform satisfactorily until the entire contents are dispensed by the consumer. Over-all performance includes adequate combined performance of the product, container, propellant, and valve and is, therefore, more complex than packaging in open-top cans. None of these can be considered independently, as there exists an interrelationship among all factors. Certain chemical and physical characteristics of the product dictate container specifications as regards lining materials and end seam compounds; others influence the selection of the valve (e.g. foam-, stream-, spray- or metering-type), actuator material, and propellant to achieve a desired dispensing characteristic. The type of propellant used can influence dispensing characteristics as well as create problems of color change in the product and structural configuration of the container to withstand high internal pressure. Thus development of a tailor-made pressure dispensing food can often requires the collaborative efforts of the packer, container and valve manufacturer in conjunction with the propellant supplier.

Bacteriological procedures for product handling as well as the type of process must be worked out for each product before this method of packaging is attempted on a commercial scale. The problem of recontamination of the product during consumer use, if the product is not used up at one time, further complicates the picture. Considerable progress along these lines has already been made and valves that can be dismantled, washed and reassembled quickly are now on the market. A plastic overcap and a plug-and-cap, also available commercially, offer similar solutions to this problem.

Despite the more complex nature of this type of packaging, we feel that it has a tremendous potential because of the convenience afforded the consumer. Pressurized foods stand on the threshold of a new era in food packaging. Ten years ago, whipped cream and whipped topping were the only food products available to the consumer in aerosol cans. As of the end of 1958, the variety had grown considerably: strawberry, chocolate and vanilla flavored whipped toppings joined whipped cream and plain whipped topping; chocolate and butterscotch syrup, barbecue sauce, liquid smoke, a meat tenderizer, salad dressing, a vegetable-base "dry-frying" spray, and a liquid coffee concentrate completed the list. Many more are in the laboratory stage.

Utilization of different types of packaging materials in the same container, to take advantage of certain specific characteristics of each, is an area requiring further exploration in

the processed food field. Composite containers (fibre can body with metal ends), ribbed aluminum containers with plastic closures, and foil-to-paper and plastic-to-foil laminates are well known to many segments of the food industry, but the potentialities of combining these materials in containers for processed foods are virtually untapped. Plastic nozzles on tinplate bodies have been accorded tremendous consumer acceptance for detergents and could have application for certain food products. A plastic container with metal ends and plastic dispensing fitting, originally marketed for liquid detergents, was recently introduced to the food industry as a commercial container for table syrup, and may soon find acceptance for other liquid food products. Different types of plastic fittings on metal bodies, or aluminum ends on tinplate bodies offer exciting possibilities for the future.

A metal overcap was recently designed and introduced to permit the canner to place a packet of additional seasoning between the can top and overcap. To date its use has been limited primarily to particular product; however, it has potentialities for similar use for other products as well as a place for additional product information and/or recipes, or for special premium offers. The overcap also features a built-in stacking feature, so important in supermarket merchandising.

A metal disc, or *piggy-back* attachment, for unitizing two components of a canned dinner, is another recent innovation. Discs are available for attaching two cans of the same size or two cans of different sizes.

STYLING

In line with supermarket merchandising and self service food markets, eye appeal of the package has become increasingly important. There has been a growing emphasis on attractiveness in food as well as nonfood containers. Lithographed cans of modern design, incorporating psychologically appealing colors and forms are being used for a wider variety of food products, but their use for the large volume staple fruits and vegetables offer some problems from a production standpoint because of the many types, grades, and brands packed by the same canner.

A recent development affecting canners and canned foods in general, is the introduction of metallized paper labels. These highly decorative, eye appealing paper labels are a step in the right direction if canned foods are to continue to hold their rightful place in the market. Metallized paper labels contain no foil whatsoever, but are a smooth coated paper to which an extremely thin aluminum layer has been applied by vacuum metalization prior to printing. They are actually brighter than the foil-to-paper laminated labels, less expensive, have less tendency to

curl than foil labels, and are more readily fed by automatic equipment. No canner can afford to overlook the possibilities of making his package more attractive and appealing to the consumer; if he does not, he stands to lose shelf space in the supermarket and the subsequent purchase of his product by the consumer. Metallized paper labels offer the economy of paper and the decorativeness and eye appeal of aluminum foil.

MANUFACTURING IMPROVEMENTS

Before leaving the discussion on metal container developments, we would like to mention just a few of the more recent technological developments in can-making methods and equipment which have contributed to improved operating efficiency and enabled container manufacturers to upgrade the quality of their products and keep metal containers in the "bargain" category as a packaging medium.

Coil stock has received widespread attention and is the subject of considerable research and development effort by can manufacturers. Actually there is nothing new about the production of steel in coils. What is of major significance to the canning industry is the ability of can manufacturers to utilize coil stock to effect production efficiencies and yet maintain quality at record level highs. Considerable technological advances have been engineered into these lines, providing more precise quality checks through electronic instrumentation, photo-electric cells, continuous contact-type measuring devices, and automatic classification of cut plate rather than visual classification. Precise quality control over these initial manufacturing operations makes possible the more efficient and economical production of consistently high quality containers.

Manufacturing end units at speeds upward of 1300 per minute, and commercial production of can bodies in multiple units at the rate of 750 cans per minute were two other recent innovations. Many other engineering advances in equipment are now in the pilot stage or undergoing commercial trials. After thorough evaluation, some will be used in manufacturing new containers, while others will be used in canneries for closing containers. More efficient and versatile closing machines are helping to effect economies to canners through more efficient production of closed containers. For example, the 423-HCM closing machine introduced to the canning industry and exhibited at the N.C.A. Convention in 1955, has been in operation in Canada since that time, closing baby food cans at the rate of 800-1000 per minute. Other models of the 423-HCM are in use in the beer and beverage industry, operating at speeds up to 850 cans per minute. Although closing speeds of 1000 to 1200 cans per minute have been demonstrated as being feasible, consistent operation

of the 423-HCM at these speeds is limited by other equipment in the lines.

In the development of tailor-made containers with increased functionality, improved performance characteristics, and added convenience, the necessity for high quality standards has not been overlooked. The canner doesn't overlook quality and in fact insists upon it. So does the consumer who is becoming extremely more critical of can quality. When the consumer buys a high quality product at a premium price, he wants the container or package to reflect that quality. The competitive nature of the industry has imposed certain quality standards; canners impose others, while the manufacturer has self-imposed quality standards that he tries to maintain.

As an industry, we are proud of the contribution metal cans have made to the economy of the country and in helping to make high-quality processed foods available the year round at a price everyone can afford. Future advances in container materials, manufacturing methods and equipment as well as technological achievements in the preparation, processing and packaging of our food supply should help the food industry to meet the challenge of adequately feeding our increasing population.

GLASS CONTAINER DEVELOPMENTS

Now let us turn our attention to glass container developments. As most of you know, glass containers are made of inert silica materials molded in production. Certain inherent characteristics make them extremely effective modern packages:

Chemical inertness makes them one of the most practical containers for certain products;

Visibility, so important in impulse buying, is excellent;

Impermeability to moisture and other gases is another important feature;

Complete protection against practically every element except light;

Convenience achieved by the selection of the proper closure or fitness;

Personality—glass can be molded into unusual and decorative shapes and sizes; colored or made opaque for protective or decorative purposes; or made crystal clear to exhibit natural product quality;

Economy—glass containers are low in cost, competing favorably with other types of packages.

In addition, glass containers handle, store and fill well and will withstand thermal processing. Glass has some limitations as regards freezing and breakage, and generally requires more careful handling and shipping than other packages.

Of considerable importance to the glass packer is the progress the industry has exhibited not only in im-

proving glass containers, but in glass container closures as well. Significant advances in production methods and techniques as well as in equipment have enabled the industry to make containers with improved distribution of glass to achieve maximum strength. Better quality control methods are enabling the glass manufacturers to produce containers of consistently higher quality, effecting savings to the packer in terms of less breakage, attainment of more efficient, high-speed production, and ultimately in increased performance.

LIGHTWEIGHTING

There are a number of specific technological advances which we would like to review briefly. Lightweighting has been in progress for a number of years and is probably one of the most significant from a cost standpoint. In the past 25 years, glass containers have shed approximately 33½ percent of their weight. In the past year, trial quantities of a new light-weight beer bottle weighing only six ounces (14 percent lighter than previous bottles) were marketed by several companies. Glass packers should be interested in following this development. Its acceptance has economic import as its compactness and light weight mean savings in storage and shipping space, lower shipping costs, and a larger quantity per unit of display space in the supermarket. As scientists accrue more knowledge of the chemical structure or molecular arrangement of glass, it is reasonable to expect additional gains in lightweighting and impact resistance as well as in more efficient, automatic production methods.

COATINGS

Improvements in coating materials to protect the surface of the container from abuse as well as in methods of application continue. Sulphur and metallic oxides are usually applied in the lehr, while the silicones and wax types are generally spray applied. The major disadvantage of the former is that the coating comes off in a water rinse and thus provides protection only as far as the filler. The latter interfere with label adhesion because of their anti-adherent properties. Recently, several new and improved semi-permanent wax-type coatings were introduced. They reportedly have good lubricity (wet and dry), high puncture strength, are easily applied, and do not interfere with label adhesion.

STYLING

The point as to what constitutes high-styling may be debatable; century old apothecary jars are as popular as ever; Colonial milk glass is still very much in favor, and new variations of Early American hob-nail patterns are being introduced. One point, however, is apparent: for individual styling, glass is unsurpassed. The "non-commercial" look of packages intended for table use particularly exemplifies this point.

LARGE FAMILY SIZES

The increased acceptance of large, family-sized packages is also influencing developments in the glass container industry, effecting economies that can be passed on to the consumer or used by the packer to spur sales, improve product quality, or for sales promotion. Jumbo-sized glass containers use only one closure and do not require a carrying carton, such as is used for multi-packs. Strategic merchandising implications are exemplified by U.S.D.A. figures on trends in whole milk packaging. Consumption in gallons increased from 5 percent to 7 percent to 8 percent for 1955, 1956, and 1957 respectively, saving customers from 7 to 12 cents per gallon. Consumption in half-gallons increased from 22 percent to 35 percent to 40 percent for the same period, effecting savings of from 1 to 3 cents per half-gallon. Glass milk bottles have again regained favor in supermarkets where paper had practically eliminated them from the packaging scene. Trends to once-a-week shopping, larger families, and more entertaining portend a great future for jumbo-sized glass packages for many other food products.

GLASS PACKAGE SHIPPING

Improvement of glass package shipping is another area of intensive investigation. Considerable progress has been made as illustrated in the Final Report of the Transportation and Packing Survey which was sponsored by the Fibre Box Association and the U.S.A. Railroads. The survey shows that freight claims on foods and beverages packed in today's glass containers averaged only \$10 per car, about one-third the average of \$29 per car for all commodities checked by the railroads.

CLOSURE DEVELOPMENTS

Closures are a necessary component of glass and many plastic containers and thereby play a vital part in tailoring containers into package form. They must be functional, performing satisfactorily under variable conditions encountered during processing operations, in storage, under refrigeration, etc., and still must be economical and applied at high production speeds. While most closures for glass containers are now made of metal or plastic, to some extent cork, paper and rubber are still used for specific applications. In 1957, over 73 billion units, worth 274 million dollars were shipped—a record for an industry so dependent upon other packages for its volume of business. There is no doubt that technological developments in closures have done much to increase the acceptability of the many container types to which they are attached by improving their convenience and efficiency. This is particularly true of "twist-off" caps. Consumer acceptance of this style of closure has been outstanding, particularly for products

sealed with vacuum, providing the quality of product the consumer wants plus the convenience of easy removal and reseal.

Increased capping speeds and improvements in gaskets and liner materials to effect more efficient seals and extend shelf life as well as advanced techniques for printing, coating, spraying and enameling exemplify closure developments of the past year.

During 1958, an aluminum screw cap was introduced on some baby food products. This is a rolled-on closure made of two metal parts: a top disk and a threaded band. Consumer acceptance of this type of closure on baby foods will undoubtedly extend its application to other food products packed in glass.

In line with the current trend for convenience, dispensing fittings to perform built-in services are being sought by many packers. While dispensing fittings in themselves are not new, materials advancements have enabled new innovations, simplicity of designs and more efficient manufacturing methods to be developed. With closures, as with any field of packaging, the impetus of competition assures continued development in the future.

PLASTIC CONTAINERS

Although rigid and semi-rigid plastic containers do not hold an appreciable amount of the processed food container market, a few developments are worth noting. The first is the greater acceptability of plastic tubes. In 1958, use of polyethylene tubes as a commercial package made substantial progress with production up approximately 70 per cent over the previous year. Many new packaging applications were market tested, with tubes becoming an accepted package for cake decoration, jelly and other food specialties such as fudge and marshmallow toppings. As mentioned previously, use of plastic bodied cans with metal ends was extended to the food field for packaging table syrups and could gain acceptance for other food products. The nonfood industry continues to be the primary market for plastic bottles and jars. Food packaging in this medium is still in the novelty or self-redeeming premium class (e.g., mustard or ketchup in a refillable plastic container).

SUMMARY

In the packaging industry as a whole, progress is being made at an ever-accelerating pace. New and improved packaging materials and manufacturing methods as well as new food products and processing methods have stimulated the curiosity and resourcefulness of scientists and engineers in the container industries, laying the foundation for the concept of tailor-made packaging.

Past application of this concept has enabled the food industry to meet the challenge of adequately feeding a

rapidly increasing population by providing high-quality, nutritious and wholesome foods the year round, at a price within reach of every consumer.

In applying this concept to future packages, the container industries must keep abreast of new developments in packaging materials and food preservation processes and be ready to innovate container structures, manufacturing methods and equipment to fully utilize these advancements. We must also keep abreast of economic and marketing trends in addition to trends in consumer preferences and desires, changes in their living and buying habits, and all other factors which influence the successful packaging of our nation's food supply.

We can take pride in making the statement that "Tailor-made packaging is a masterpiece of intellectual accomplishment; its application a tool of extraordinary usefulness" and confidently look forward to a bright and rewarding future for our industries.

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External Corrosion of Canned Foods in Marine Transportation

By Russell C. Phillips
and Raymond K. Cohen,
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Corrosion is estimated to cause losses of over \$5 billion annually in the United States alone. External corrosion of canned foods, while a small part of this total, creates many problems and headaches for all who are involved in production, transportation, and marketing of these products. There is no place in today's self-service retail stores for any products which are not in perfect merchantable condition.

Nearly 30 percent of the West Coast pack of canned fruits and vegetables is shipped by water, and rusting is the most serious type of damage that occurs in marine transportation. Some of the most vocal reports of this so-called "sweat" damage came from the important and growing overseas markets.

Members of the Canners League of California and the steamship lines carrying their products all over the world realized that this was a problem which could best be solved by cooperative research. They enlisted the support of the steel companies, the port and terminal operators, and the suppliers of cans, labels, and shipping containers. These industries formed a "Committee for the Evaluation and Control of Sweat Damage," which engaged Stanford Research Institute in the summer of 1957 to tackle this problem.

During the first year, we defined the nature of sweat damage and selected control measures that seemed to have the greatest promise. The work ranged from studying insurance claims statistically to crawling through the holds of pitching ships to witness sweating at first hand. While the economists were working with the underwriters and with carriers, shippers, and receivers to uncover the damage records for several years

back, the engineers were busy with cameras and slide rules.

Let's see what we now know about sweat damage and methods for reducing it. The most significant economic finding was an increase in sweat damage claims over a six-year period, 1952-1957. This is shown in Figure 1. The annual sweat damage loss to West Coast canned foods alone approached \$1,000,000 on the 665,000 tons shipped in 1956.

Another finding was that sweat damage varies markedly with the seasons. In Figure 2 we see that nearly all the damage occurs during the four winter months. This brings us to the real heart of the problem.

Sweating occurs when cold canned foods are exposed to air with a dew point above the temperature of the cans. Dew points of 70° to 75°F. are commonly experienced in the Panama Canal and the Caribbean Sea. Canned foods loaded at 50° to 55° often fail to warm enough in transit to avoid sweating when the ship passes through these tropical waters. Figure 3 shows some actual data which illustrate this point.

These data were acquired on two voyages last winter. First let us look

FIGURE 1

Trends in Sweat Damage Claims

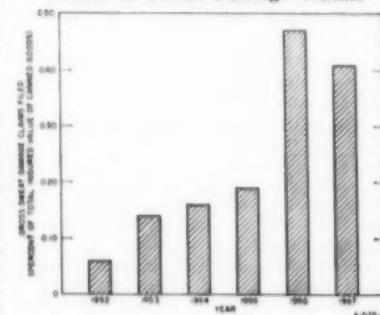
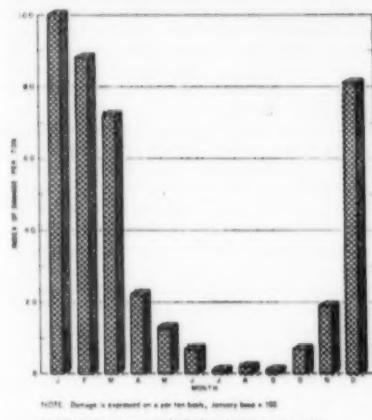


FIGURE 2
Seasonal Index of Sweat Damage to
Canned Foods (Ave. 1952-56)



at the data for the voyage on the left of Figure 3. The test case of canned foods was at a temperature of 54° when stowed in the ship at San Francisco. In 22 days its temperature rose to 67°. In the meanwhile, the dew point of the air adjacent to the test case was 4° or 5° above the can temperature during much of the trip.

The lower curve is a measure of condensed water on the test can. You will note that the onset of condensation concurred with the crossing of dewpoint and can temperature curves. This is further evidence of how readily moisture diffuses through fibreboard. A few days prior to discharge, the dewpoint of the air dropped, and the cans dried out. They were free of rust.

In the voyage depicted on the right, the test case was loaded at 52° and gradually warmed to 76° before the end of the trip. The driving force for condensation (difference between dew point and can temperature) reached 8° to 10°, and the cans were so wet they failed to dry out in a week of lower dew point weather. Needless to add, they were severely rusted.

If this is just a matter of can temperature and air dew point, why not control one or the other to minimize the hazard? Both of these control measures are being used to a limited extent. Although heated warehouses are common even in sunny California, the heat is dissipated rapidly when cans are held on unheated water terminals for periods up to a week or ten days prior to loading. We could find no economical way of heating canned goods just prior to shipment. In contrast to moisture transfer, heat transfer through a block of canned foods is painfully slow.

Ventilation of ships' holds with heated air did not seem to be practical. Uniform distribution would be difficult to achieve, and the warm air could cause transfer of moisture from hydroscopic materials—other cargo, dunnage, or even the fibreboard cases—to the cans before they were warmed above the dew point.

Many ships are equipped with dehumidifiers for the air circulated through the holds. These are silica gel absorbers or, less commonly, lithium chloride absorbers. If properly designed, maintained, and operated, these systems would be expected to provide much safer environments for transport of canned goods, yet the sweat damage claims records we investigated for 1952 to 1956 show that

canned goods on ships with dehumidifiers experience slightly (perhaps not significantly) more damage than on those ships without this equipment. We do not yet know whether the fault lies in design, maintenance, or operation of these systems. Limited examinations of ships' logs gives us reason to believe that there are at least two interrelated factors which account for much of this discrepancy between theory and practice.

First, most of the dehumidifier-equipped ships have unusually high capacity ventilation fans. The dehumidifiers are operated only as needed. The systems also provide for recirculation of air with or without the addition of dehumidified air or for the use of atmospheric air only. These are too many alternatives for a ship's officer who is frequently handicapped with inadequate instruments for measuring the dew points of the air in the various holds. Therefore, it is quite possible for him, inadvertently, to pump much more moist air into the holds than he would on a ship without the high fan capacity.

We feel that modern instrumentation which provides graphic evidence of impending condensation conditions should reduce sweat damage not only on dehumidifier-equipped vessels, but even on those without these facilities. In January of this year, we had our first opportunity to observe a prototype instrumentation system of this type under test on a dehumidifier-equipped vessel. The pertinent dew point and temperature data were continuously recorded on the console shown in Figure 4. When the dew point curve for the air in a compartment approaches the temperature of

FIGURE 3
Occurrence of Condensation during Intercoastal Transport

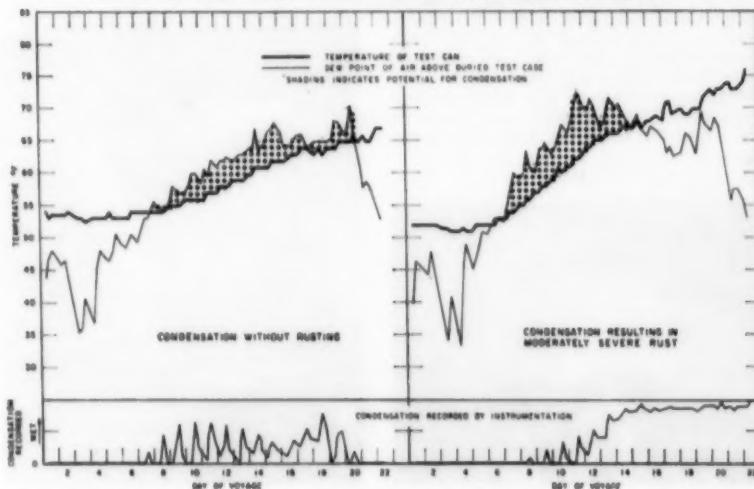
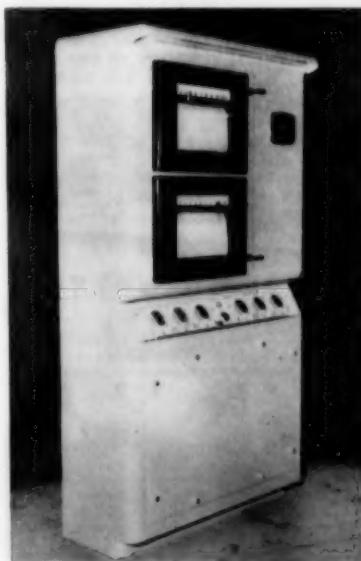


FIGURE 4



the material stowed in that compartment, it is obvious that dehumidified air should be introduced into the system.

The data from this voyage have not yet been fully evaluated, but we can say that the basic concept of better instrumentation for detection of the "weather" conditions in ship's holds has technical merit. We have certainly not yet concluded whether or not the installation of up to \$20,000 worth of instruments in a ship of World War II vintage (as most ships in the inter-coastal trade are) can be justified.

There is one other important factor we observed in riding these sturdy, old ships. Their design often includes many small passages for air to breathe in and out of the upper cargo decks in an uncontrolled manner under the influence of sea winds and the flexing of the ship in the waves.

As these ships approach retirement age, they will be completely remodeled or replaced with vessels which will take advantage of the rapid developments in materials handling methods since the War. One of the most significant trends is toward the use of sea vans, large sealed boxes containing up to 30 tons of cargo, which can be transferred between flat bed trucks and ships much more economically than the item-by-item handling methods in common use today would ever permit. On the East Coast, Pan-American has had excellent damage record experience in more than a year of operation with sea vans, but we have no specific data on their canned foods experience.

We have had an opportunity to observe the loading of canned foods in the vans which Matson recently started using between the West Coast and Hawaii. In addition, several experimental vans containing canned foods were carried both on the deck and in the hold of the vessel on which

our observer sailed in January. We hope to obtain evidence of the advantage this handling method may have in reducing sweat damage to canned foods.

It is postulated that, if canned foods were loaded directly into sea vans from a heated warehouse, much of the cooling that commonly occurs during open trucking to terminals and further cooling before loading onto ships could be minimized. Also, the sea vans provide complete protection of the contents from rain, a still unknown factor in sweat damage.

Until these vans are in common use, there may be interim measures which can be used advantageously even with conventional ships. One such labor-saving method for handling canned foods is to use glued or stopped pallet loads, in which 50 to 80 cases are unitized on an expendable pallet. Some experiments have been carried out both in the laboratory and aboard ship to study the enclosure of pallet loads of canned foods in polyethylene vapor barriers and asphalt-laminated kraft paper. Figure 5 shows one of the polyethylene-covered unit loads being hoisted onto a ship.

Unfortunately for our experiment, all the canned foods carried on that voyage were free of sweat damage, so it was not a good test of vapor barriers. This is the major deficiency of field work, aside from the expense. You can never be sure, when you embark on a two- or three-week sea voyage, that you will witness condensation on the cans stowed on that vessel. In fact, the odds are against you.

Therefore, some of our most useful work is done in the laboratory with a large environmental control chamber, in which we can essentially duplicate the temperature and dew point conditions encountered by canned foods in a typical voyage on which sweat damage did occur.

A severe test of vapor barriers was carried out in this chamber, and we found that this method is not a panacea. A pallet load of canned foods was cooled to about 50° under humid conditions, then enclosed in a polyethylene envelope. The test chamber was raised more rapidly than usual to 90°, and the moisture normally in the

fibreboard was released, causing condensation on the still cold cans at the center of the load. Sweat damage was severe. Similar results were obtained with a single case enclosed in polyethylene. As a result of this work, we recognize that vapor barriers will be feasible only if applied to relatively warm and dry canned foods at the cannery warehouse.

Several more pallet loads enclosed in vapor barriers were shipped to the Gulf Coast at the end of last month. No observer went along with this ship, but one did meet it just this week to witness discharge at several ports.

The method for sweat damage control which has received the most attention during the last 8 or 9 months is the application of very thin films of corrosion inhibitors to the cans prior to labeling. Early in our study, we had looked into the subject of procoating. This is a word which raises the hair on the back of the neck of any American canner. Coating cans for shipment overseas during World War II was not a happy experience for the canners, and they have no intention of repeating it voluntarily. The high costs of procoating (at least 5 cents per case) could not be justified by the sweat damage losses, and cans with a thick coating, even if it were colorless instead of olive drab, might not be marketable.

One of the can manufacturers was the first to show that rolling cans through a fog of commercial corrosion inhibiting oils or emulsions would give a thin, unobtrusive film that would provide some protection against rusting. In Figure 6, we see one of their experimental fogging devices in use during a test run by our staff. Fogging does give films with most of the desired characteristics, based upon laboratory tests. In a permanent in-

FIGURE 5



FIGURE 6

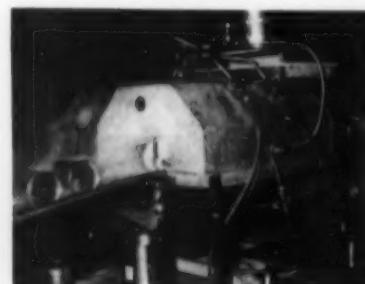


FIGURE 7



stallation, a forced draft would prevent the fog from flowing out into the room.

With our encouragement, another can manufacturer has been developing equipment for dip-coating cans. One of the experimental coating machines is illustrated in Figure 7. The dip-coating technique is simple in concept, but difficult to reduce to practice. The problem has been to reduce the thickness of the coating, so that it is not apparent and will not interfere with immediate labelling. Good progress has been made.

Concurrent with the equipment development work by the can manufacturers, we have been evaluating the protection offered by a number of commercially available formulations and compounds alleged to have corrosion-inhibiting properties. The object is to find a film forming liquid which will increase the corrosion resistance of cans at reasonable cost.

The ideal liquid must also form a transparent, uniform, tack-free film, even on stained cans, be compatible with the labels and pick-up glue, and be completely edible and tasteless.

These are quite demanding specifications. Out of some 25 commercial formulations, only one, an oil, seems

to import the desired corrosion resistance. It has been used in the past for reconditioning smoke-damaged canned foods. The solvent vehicle it contains has a low flash point and unfortunately has a disagreeable odor. Possibly a high flash point, deodorized kerosene could be used in this formulation if the demand justified. A material with a similar base, but containing a surface active agent to permit dispersing it in water, is also marketed. This water emulsion is not nearly as effective as the oil with the solvent vehicle.

Much of our own formulation research has been directed toward perfecting water emulsion systems, because these are more suitable for use in canneries than formulations containing volatile solvents. Some 200 formulations were tested, and we are not yet completely satisfied with the best product of these efforts. Since it is still under development, I am free to say only that it contains a soluble petroleum oil, an amine derivative, and an inorganic salt. At the low levels of application needed for protection, materials costs are nominal.

During the present sweat damage season, we are observing the out-turns of canned foods treated with our

emulsion and commercial materials, to obtain statistical evidence of their relative effectiveness in field use. We will not report the results in detail until all the data are available for analysis.

The costs of the emulsion are such that the technique could possibly be applied to the entire pack, rather than to only that portion likely to be shipped by water. This would also alleviate the corrosion presently experienced in storage and in overland transportation.

The means for minimizing sweat damage to canned foods are at hand. The most practical method for immediate relief is probably to post-coat the cans. In the future, we can expect that the increasing use of sea vans and other innovations in materials handling will provide much better protection for canned foods carried by water.

Finally, we wish to acknowledge the contributions made to the program by all the participating industries, the marine underwriters, universities, government agencies, and many interested individuals. Dr. Michael Nelson, Stanford Research Institute Economist, compiled and analyzed the claims data.

MEETING OF N.C.A. DIRECTORS

Where To Look and What To Believe?

By H. Thomas Austern,
Chief Counsel,
National Canners Association

In the old-fashioned Big Tent circus, the constant challenge was how to follow what was happening in each of the three rings. My annual assignment to highlight for you what is going on in Washington is beset with the same problem.

Today it is difficult for any American, particularly for one close to the political cauldron that is Washington, to maintain any balanced perspective. On every side, there is news, talk, agitation, controversy, confusion, and deep concern about a multitude of vital problems. Some one recently added that three other things make up Washington life—protocol, alcohol, and Geritol.

Yet constantly competing for your attention, energy, and understanding are the hazards of foreign affairs, the race to conquer space, the booming prospects and inflationary fears about our domestic economy, with each of these always colored by the present politics of the new Congress and the hatching hopes for 1960.

To penetrate fully any one of these complex public issues would command the entire time and exhaust the energies of any man. Perhaps none of us here today is in a position to do so. I suspect that this would be true even for those enjoying the luxury of complete idleness or taxed with the responsibility of any public office. And that lack is not an unmixed blessing. For so often the price of becoming truly knowledgeable on any one subject is that the rest of the picture is thrown out of balance and badly distorted.

Yet it remains my immodest assignment to run the spectrum and to attempt to mark off for you in broad bands of color the boundaries of these complex questions. I do not profess to know the answers, and I suggest that those who think they do are foolhardy. All that I can do is to report, I hope in an interesting fashion, what responsible and supposedly informed people are thinking about and where some of them stand on particular issues.

On anybody's list, concern with foreign affairs comes first. Perhaps the most intriguing developments here are the much publicized private visits

The closed meeting of the Board
is reported on page 42.

of public men. Of course some diplomats still meet behind closed doors. But Senator Humphrey visits Moscow and reports publicly. Mr. Krushchev appears in a filmed interview on our American television. Mr. Mikoyan comes and gives Cyrus Eaton a troika, complete with three matched horses; he is entertained at lunch by Henry Ford; and he evasively trades punches on "Meet the Press."

One part of the cold war, however, sometimes escapes general attention. Soviet economic assaults upon the West are being stepped up tremendously. The entire Sino-Soviet bloc is engaged in a foreign trade offensive of unprecedented magnitude. That far-flung operation covers not only much of Europe, the Mid-East and Far-East, and Africa, but also reaches even to our doorstep in Central and South America. Almost every week there is a new development—a disruptive trade agreement with Iraq, the breaking of the world aluminum market price by Russian exports, or, coming closer to the canning industry, the recent announcement that Russia now cooperates with the international tin cartel.

This economic offensive is not only a threat to American foreign trade. The waves of its effect can reach and

rock the economic life of every nation in the Western world.

The other side of the foreign affairs coin is the state of our American defense. Here the closer the study, the less one seemingly gets in the way of firm facts or truly informed opinions.

It must indeed be a tough and frustrating job to be a foreign intelligence agent assigned to Washington to report on American defense. One important official insists we are far behind Russia in the missiles race. A second argues that we are really ahead. A third equally important fellow makes it clear that we have no present intention of trying to out-produce Russia in ballistic missiles. A Republican Senator reports that we will soon close the gap. A Democratic member of the Armed Services Committee laments that the Soviets are steadily increasing their lead.

Some people have wondered how any hard working Russian agent is supposed to know which statements it is safe to transmit to the Kremlin and which will probably get him sent to Siberia. How the ordinary American can citizen can get at the truth is equally difficult to determine.

Of course, any decision as to how much should be spent for defense and what it should be spent for is a grave undertaking. Its difficulty is not lessened when in the very first days of the new Congress these vital issues of defense become areas of intense political argument.

Yet whatever is the present state of American defense or what it will be in the near future, it is necessarily a vital public question, and looms large when one examines President Eisenhower's proposed budget for the next fiscal year.

The total Federal budget is set at \$77 billion. Over 69 percent of that budget is for defense, international affairs, and veterans benefits.

More than one-half of the total budget—\$45.8 billion or 59 percent—is directly allocated for national security.

Of this, \$41 billion is earmarked for military purposes—soldiers, bases, planes, ships, and weapons. That is the largest figure in any peacetime budget in American history, yet there are few, if any, people who would suggest that this part of the budget should be cut below the Administration request.

The remainder of the national security budget is for stockpiling, atomic energy, and foreign military assistance. Some \$3½ billion are being asked for foreign military and economic aid. Even though many feel that this foreign aid is as important as any part of our defense effort, this is the only part of the security budget where Congress might make reductions.

To pay interest on the present national debt will take 10½ percent of

the total budget—or over \$8 billion. That interest charge is \$500 million more than last year, but it cannot be reduced.

The farm program for next year is budgeted at \$6 billion. That is slightly lower than last year's agricultural spending, but anyone who thinks that this figure will be reduced simply ignores political realities.

This leaves \$10 billion—or under 13 percent of the total budget—for all the remaining expenditures by the Federal Government. These include Congress, the judiciary, all the agencies and departments, Federal aid to housing, highways, and aviation, rivers and harbors, the postal deficit, education and public health, and unemployment compensation.

Of course, \$10 billion isn't hay. Yet in these areas, the Administration has pulled in the Federal fiscal belt as tightly as possible on all of these other activities and on some of the fringe programs.

Indeed, the proposed \$77 billion Federal budget represents almost a \$4 billion reduction from the more than \$80 billion that will actually be spent in the present fiscal year which ends next June.

You can therefore perhaps realize how futile it is to hope that the proposed budget could be substantially reduced, when you remember that this \$77 billion proposal is widely considered and politically attacked as an economy program. Already there is Congressional clamor for substantial increases in many programs. Even this early in the session, it seems abundantly clear that the Administration limits for many budget items will be jettisoned. In the very first debates, housing and Federal aid to airports, Congress appears likely to go further than the President.

If one believes even half of what is being spoken and written, the large Democratic majority in the new Congress seems prepared to increase spending well beyond the Administration proposals in many areas, with the single exception of foreign economic aid.

Will this budget be balanced? On paper, it is supposed to be. And Senator Lyndon Johnson assures us that whatever increases the Democratic Congress may make, there will still be a balanced budget.

But any balancing requires Federal tax revenues of \$77 billion. That amount is \$6 billion more than the record tax receipts for fiscal 1957, the best of the boom years.

Obviously, there can be no tax reductions, and additional taxes have to come from certain special classes, such as insurance companies and some types of cooperatives.

But only the most abundant optimist really believes that the budget will be balanced. In the present fiscal

year, the Federal Government will run more than \$12 billion into the red. The next deficit will undoubtedly be at least several billion dollars.

Moreover, that deficit is likely even though the projected revenues are based not merely on a continued economic recovery but on truly booming business conditions.

Happily, many informed commentators agree that we can anticipate some continued upswing in our economy. But there is hardly any agreement that in 1959 there will be a real business boom. At best, some have what they call a "subdued optimism."

What will be the level of business—and of tax receipts—will turn on the answers to many question marks that exist in the economy.

One of the most troublesome is that massive unemployment continues despite the improvement in business. In January of this year, the number of unemployed again rose to 4.7 million. That is the highest figure since last April, when 5.1 million were out of work. It is the largest January unemployment figure since 1941.

Another big question is the impact of possible strikes. In 1959 major labor agreements expire in the steel, railroad, aluminum, rubber, telephone, meat packing, and metal can industries. If prolonged strikes should occur, business improvement can be retarded.

Other question marks are how many new automobiles can be sold, particularly through the spring, and how much will be spent by American industry for new plants and equipment.

Still, almost everyone looks for some continued business improvement despite the different views as to how fast it may occur. If the momentum of the last quarter of 1958 can be maintained, there is a good basis for that optimism. In that calendar quarter the Gross National Product, the economists' label for the total value of all goods and services, reached an annual rate of \$453 billion. In terms of dollars, that broke all previous records. Even when corrected for a two-year increase in prices, it was still equal in physical volume to the levels of mid-1957.

Perhaps most encouraging, and of particular interest to the canning industry, the beginning of 1959 showed consumer income and purchasing at record highs both in dollars and in tonnage.

And on a long-range basis the prognostications are almost uniformly optimistic. Some people are even talking about the decade ahead as the "Soaring Sixties."

That long-range optimism about business activity is based on several fundamental factors. These include the steady increase in population, the constantly improving educational level, the fruits of industrial research and

of automation, and the vast progress made in conquering disease. In the view of many, the next decade should be one of constantly expanding economic opportunity for business in general, for the food industry in particular, and for most individuals.

Once again I feel bound to emphasize, among these many statistical projections for the future, the vast increases in population. Today there are 175½ million people in our 49 states. Barring war or other catastrophe, competent observers reasonably expect a 1970 population of almost 214 million people. There will be over 61 million households embracing a fifth more families than we have today.

The breakdown of that population growth by age groups is even more interesting. Each year throughout the 1960's, about 5 million new babies will arrive. Today there are some 60 million children under 18 years of age, and by the end of the next decade this group is expected to increase to 75 million.

All of these children and adults, one may expect, will have good appetites. The increased population will mean a vastly increased market for many products. For canned foods it necessarily will mean many more consumers.

Any canner whose future growth only matches that graph of a constantly increasing population will in reality be standing still.

Yet for the long range, whatever may be the basic factors of strength, the most troublesome fear is inflation. How much inflation will occur, and what is it likely to do to the economy? Only when the statistical information about American business activity is measured in terms of the shifting value of the dollar—only when the reported numbers are adjusted for the steady inflation we have already had—can growth factors and the strength of the American economy be truly judged.

On that cold analysis, let us look at some startling facts. It is true that the Gross National Product rose from \$33.6 billion in 1909 to \$440 billion in 1957. But during that half-century the American dollar was steadily declining in value. If the 1957 figures are expressed in 1909 dollars, the Gross National Product for the record year of 1957 has to be reduced from \$440 billion to \$134 billion.

In other words, of the \$406 billion increase in the Gross National Product over 50 years, about \$300 billion represents a fictitious gain from the depreciated dollars. In that period, the dollar wasted away in value at an average annual rate of about 2½ percent, compounded.

Economists tell us that, assuming no mushrooming inflation, one must conservatively anticipate a continuing loss in the value of the dollar

of about 3 percent per year. The Gross National Product has to continue to increase by 3 percent for us to stay even in real production.

Statistics aside, the fear of inflation has important political repercussions. Current Administration policies emphasize its dangers. The proposed balanced budget is designed in part to prevent further inflation. The Democrats insist that budget balancing is an Administration obsession.

But realistically a balanced budget is more of a wish than a probability. The real question is whether the pressures of inflation can be kept within control. One economic pessimist has said that this is like trying to keep a woman only a little bit pregnant.



H. THOMAS AUSTERN

But how to control inflation—how to minimize the pain it brings to vast segments of our people—will remain a prime challenge for our Federal Government.

Economists debate endlessly as to how far inflation may be controlled by regulation of currency and credit. But few people can question the drastic impact of continued deficit financing on Government securities and the management of the public debt. Deficit financing has in it a constantly increasing public debt. The Treasury has had to keep scurrying to meet the current demands of the Federal Government for money both for current expenditure and for refinancing its maturing obligations. Changing interest rates have affected Government bond prices to the point where a Government bond has become almost a speculative investment.

A related and interesting phenomenon has been the constant increase in the use of Treasury short-term bills for Government financing. The Treasury, reluctant to approach the long-

term market, has been financing its deficit at short-term through the sale of tax-anticipation and other short-term bills. As of February 1, the total amount of short-term Treasury bills outstanding had reached \$30 billion, and it is expected that by next month the total will approach \$32 billion.

These bills are plainly designed as substitutes for cash and are a close cousin to plain currency. Even when the bills are placed with corporations and other nonbank buyers, they have an inflationary influence. When, however, the bills have to be bought by the Federal Reserve and commercial banks—which use deposits to purchase them—they have the direct result of creating more credit and can seriously impair the effectiveness of credit restraints.

The point was made most clearly by Secretary of the Treasury Anderson in his statement made last month when the Fiscal 1960 budget was released. As the Secretary said:

"We must come to a wider and clearer understanding of the dangers to our economy of the way in which continuing large Government deficits contribute to inflation. When the Government spends more than it takes in, it must borrow the difference in order to pay its bills. To the extent that these funds can be obtained only by resorting to borrowing from the commercial banking system, there is real inflationary pressure. Heavy competition from private borrowers for available savings usually means that a large part of a deficit must be financed through issuing securities to the banking system. This results in an equivalent increase in bank deposits—thus increasing the money supply. To add to the supply of money without adding to the amount of goods and services tends to decrease the value of our money. In that way deficit financing generates inflationary pressures sooner or later."

The increased use of Treasury bill financing illustrates the threat to the value of money created by an unmanageably large deficit. Only last week, the Treasury auctioned off another \$1.5 billion in tax-anticipation bills. This was necessary because of a surprisingly heavy percentage, over 20 percent, of holders of maturing Treasury securities who refused to exchange them for new obligations. This problem of trying to refinance maturities is one that apparently will constantly plague the Treasury for the foreseeable future.

In the remaining time, may I try to highlight activities in Congress, the courts, and the Federal agencies that may be of interest to canners.

The 85th, or Sputnik, Congress made Alaska our 49th state, enacted the first civil rights law since the Eighteen Seventies, created a space

agency, and passed a Welfare and Pension Plan Disclosure Act that will require many of you to make annual reports on your pension plans.

The last Congress also enacted the Food Additives Amendment to the Food, Drug, and Cosmetic Act—new licensing statute of vast significance, probable cost, and certainly much current work for the food industry. It also passed a small business lending law that offers long-term loans along with some important tax advantages for small business.

The new 86th Congress is not only predominantly Democratic. It is also the Congress preceding an election year. In it, some believe, sits the next President of the United States. There is no need for me to elaborate that politics will color every proposal, debate, and legislative action.

Apart from foreign affairs, the Federal budget, and defense, and the movement to make Hawaii our 50th state, Congress will concern itself with the perennial farm problem. Whatever happens, we still have farm surpluses. Of direct interest to the canning industry are the recurrent proposals to include all canning crops under mandatory marketing orders, to authorize nationwide marketing orders, to confirm the asserted lawful right of one farm cooperative to combine with another in joint marketing, and to transfer supervision of pricing conduct by cooperatives from the Department of Agriculture to the Justice Department.

Equaling the interest in agriculture will be the Congressional activity on the antitrust front. Investigations are scheduled into the economic structure and pricing practices of the baking and drug and other industries. Tomorrow Governor Anderson will detail for you the current Federal Trade Commission investigation into concentration in food distribution, the relative position of chain stores and voluntaries and cooperatives, and the extent and economic effect of private label selling. Do not be surprised if at some stage in this session some Congressional Committee takes the ball away from the Federal Trade Commission.

There is a multitude of proposals to amend and to strengthen the antitrust laws. One would make Robinson-Patman Act orders enforceable by a \$5,000 fine for each day of violation. Another would require advance notice to the Government of any sizable merger. The Department of Justice may get the right to investigate antitrust violation by a civil order instead of through a grand jury.

The recurrent proposals to amend the Robinson-Patman Act have all been presented, including S. 11 to restring the good faith meeting of competition, a new proposal to require that different prices must always be charged to wholesalers and retailers,

and still another to require that all discounts and allowances be published.

Whenever Congress is avidly interested in antitrust, the enforcement agencies always respond with increased activity. Both the Justice Department and the Federal Trade Commission will get more money. Both have announced stepped-up action against mergers, and this movement recently got great impetus from the judicial condemnation of the proposed Bethlehem-Youngstown merger. An effort to break up General Motors is now in the antitrust mill, along with a grand jury investigation of the steel industry on the West Coast, and active prosecutions in other industries.

One important case involving brokers and brokerage may even go to the Supreme Court. The *Brock* case concerns the legality of an apple packer making a deal with his broker for a smaller commission to be paid where the broker is authorized to lower a price in order to meet competition. The Federal Trade Commission, in an opinion by Governor Anderson, held that this conduct necessarily involved passing part of the brokerage on to the buyer even though the buyer did not know of and had nothing to do with the arrangement between the canner and the broker. The Court of Appeals in Chicago recently held that there was no violation, at least on the part of the broker. Some lawyers believe that this case necessarily means that a canner is free to have varying brokerage arrangements depending upon the price at which the goods can be sold by the broker so long as the buyer is not involved.

Since some canners have previously been subjected to cease and desist orders on that same point, you will all be interested in following this case and in its ultimate determination.

Finally, and without going into all of the many other areas of likely legislative action, Congress will concern itself with labor legislation. Some form of labor-management reform bill may be passed to protect unions and their members from racketeering.

The leverage of labor on the new Congress may prevent even this type of bill unless it also embodies some advantage for the unions. Any thoroughgoing revision of the Taft-Hartley law is still on the horizon, but that horizon is an imaginary line that recedes farther into the distance as you approach it.

It is also almost a certainty that there will be a serious attempt to get an increase in the minimum wage under the Fair Labor Standards Act along with efforts to reduce the maximum workweek and to curtail the existing exemptions. Those of you who have been through many Congressional hearings on the canning industry overtime exemptions may be called upon for a repeat performance.

The Labor Department is also active in formulating new regulations

under the Wage and Hour Law. The Food and Drug Administration, with an increased appropriation, is expected to step up its enforcement of misbranding. As many of you know, a number of states are now engaging in a frolic of their own in the labeling field, and in some instances have required national label changes to meet the view of one or two states. In some areas state agencies have seized products whose labeling is not being challenged by the FDA.

To attempt any further detail in these swirling areas of Government activity would give you both gastronomical and mental indigestion. Enough has been ventured perhaps to indicate that the future holds more and not less Federal regulation, that every business must accommodate itself to these complex legal operating rules, and that every canner must either on his own or through the N.C.A. keep fully informed about them.

The brief review I have attempted has ranged over only the more immediate bands of the Washington spectrum. But one living in the capital city of the richest and most productive nation in the world, where the only real business is Government, constantly returns to a few deeper questions.

In the welter of Washington activity, amidst the complexities of Big Government, and in the cross-currents of political ferment, many wonder where the world as a whole is going—and what effect radical changes elsewhere may have on their own country.

Writing in the current *Atlantic Monthly*, Barbara Ward points out that what is happening in many parts of the globe is far more significant than any acute issue of communism or Democracy. She suggests that there is no single contemporary revolution, but perhaps many revolutions—scientific, industrial, technological, and particularly in population growth. Many countries are trying to leap directly from a rural, even savage or primitive, environment to the modern age of airplanes, advanced technology, and industrial self-sufficiency.

To do so, they must have capital, and lots of it, either from Western investments and loans, or taken out of the hides of their own people through a communized low standard of living.

More important, she points out that by the year 2000 the present world population will have more than doubled. There will be well over 2 billion more people in Asia alone. Only intensive modernization of agriculture and equally expanded industrial development can create the resources to feed and to house these new multitudes.

In our own country, these population problems may also occur even though to a lesser and more manageable degree. But whether against the

far greater pressures of world-wide bulging population growth, economic needs, and political changes, our fundamental concepts of individual freedom and private enterprise can be successfully preserved, is perhaps the more important, enduring, and truly challenging problem. Let us hope that perspective on that issue will never be lost.

Convention Report

(Concluded from page 42)

were special marketing, raw products and technical sessions the following two days of Convention time. One of the Marketing Sessions was chairmanned by President Sorensen. Papers presented at these affairs (except for the Raw Products sessions, all of which were not made available) are reproduced in this Proceedings issue.

Two of the projects of the Consumer and Trade Relations Program were highlighted during Convention—a session dealing with multi-packaging of canned foods, presided over by Dr. H. L. Stier, Director of the N.C.A. Division of Statistics. Among the speakers at this session were two canners who related their multi-packaging experiences—Edwin C. Kraus, president of the Big Stone Canning Co., Ortonville, Minn., and vice president of Butter Kernel Products, Inc., Minneapolis, Minn., and James E. Glover, general manager of Coastal Foods Di-

vision of Consolidated Foods Corp., Cambridge, Md.

Another C&T.R. program at the Convention was the annual Food Editors Conference, arranged by Dudley-Anderson-Yutzy, N.C.A.'s public relations counsel, and presided over by Katherine R. Smith, Director of the Consumer Service Division. At this program Secretary Campbell explained the symbolism and meaning of the official slogan, namely, that canners use "Nature's Best" and, that having done so, it is "Better, Canned." Robert B. Heiney of the N.C.A. staff told the food editors what legislative programs in Washington might affect canned foods consumers, and George Anderson of D.A.Y., using a slide presentation, demonstrated to the editors how the N.C.A. and the cannery industry make use of a favorable canned foods editorial feature when it appears in one of the women's magazines.

The raw product sessions were three in number, handled respectively as chairmen, by Fred S. Wyatt, Chairman of the N.C.A. Raw Products Committee, on Raw Product Quality Evaluation; by Max D. Reeder, Chairman of the Raw Products Technical Advisory Committee, on Recent Developments in Raw Product Handling; and by P. K. Shoemaker of the Raw Products Committee, on Current Developments in Breeding of Canning Crops.

The Government Market for Canned Foods was the subject of another session, presided over by Alfred J. Stokely, Chairman of the N.C.A. Procurement Committee.

During the two days immediately preceding the formal Convention program several N.C.A. activities were covered in Committee meetings. The Administrative Council met to consider and take action on the recommended budget for 1959. The Board of Directors had an open luncheon session and heard H. Thomas Austern, Association counsel, report on the President's budget message and on other Washington situations that could affect the canning industry.

President Burns was one of the speakers at the tenth anniversary meeting of the Forty-Niners.

Secretary Campbell was host to members of the Association of Canners State and Regional Secretaries, at which Dr. Charles H. Mahoney, Director of the N.C.A. Raw Products Research Bureau, and Don Callahan of the D.A.Y. agency reported on the new look in administration and publicity for the annual canning crops contest sponsored by N.C.A. and the National Junior Vegetable Growers Association.

Meetings were held of the following N.C.A. Committees: Consumer and Trade Relations; the Labeling and Labeling Advisory Subcommittee; Simplification of Containers; Consumer Service; Resolutions; Scientific Research; Fishery Products; Nominating; Statistics; Claims; Legislative; Raw Products Technical Advisory; Committee on Fruit Juice Drinks; Fruit Nectars; Procurement; Committee on Artificially Sweetened Fruits.

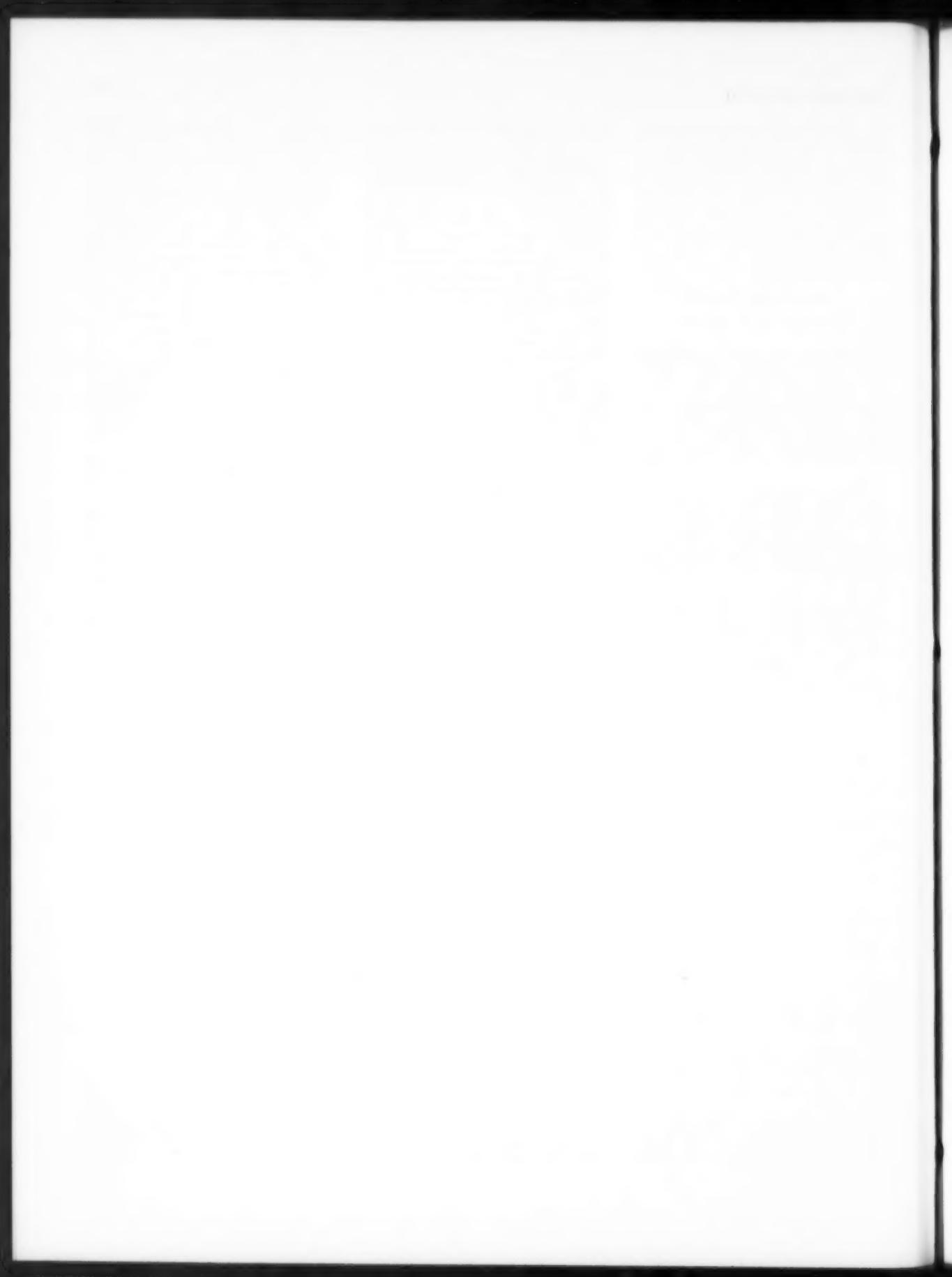


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